

CRYSTAL STRUCTURES OF DOMAINS OF RECEPTOR PROTEIN TYROSINE
KINASES AND THEIR LIGANDS

Background

5 The following description of the background of the invention is provided simply as an aid in understanding the invention and is not admitted to describe or constitute prior art to the invention.

 Receptor protein tyrosine kinases ("RPTKs") include a large and diverse family of enzymes. The RPTK family contains multiple subfamilies, one of which is the fibroblast
10 growth factor receptor (FGFR) subfamily. Another subfamily is the type III receptor tyrosine kinase (RTK) subfamily whose members include platelet-derived growth factor receptors α and β ("PDGFR α " and "PDGFR β "), macrophage colony-stimulating factor receptor (M-CSFR), *c-kit* (also referred to as SCF receptor ("SCFR")) and the *flt3* receptor. The members
15 of this RTK subfamily contain five immunoglobulin-like (Ig) domains in their extracellular ligand binding domains followed by a single transmembrane domain and a cytoplasmic tyrosine kinase domain interrupted by a large kinase-insert. For a review of RPTKs, see Schlessinger and Ullrich, 1992, *Neuron* 9: 383-391; for a review describing the FGFR subfamily, see Givol and Yayon, 1992, *FASEB J.* 6 (15): 3362-3369.

 All RPTKs enzymatically transfer a high energy phosphate from adenosine
20 triphosphate to a tyrosine residue in a target protein. These phosphorylation events regulate certain cellular phenomena in signal transduction processes. Cellular signal transduction processes contain multiple steps that convert an extracellular signal into an intracellular signal. The intracellular signal is then converted into a cellular response. RPTKs are components in many signal transduction processes. Typically, an RPTK regulates the flow of
25 a signal in a particular step in the process by phosphorylating a downstream molecule. This phosphorylation modulates the downstream molecule's activity by turning it either "on" or "off," causing excessive or deficient signalling by the downstream molecule. Excessive signalling can lead to such abnormalities as uncontrolled cell proliferation, which is characteristic of such disorders as cancer, angiogenesis induced by various tumors,
30 atherosclerosis, and arthritis. Alternatively, cellular proliferation can be induced

therapeutically, for example angiogenesis may be used to ameliorate coronary artery disease by inducing collateral vascularization.

Ligand-induced dimerization of RPTKs is an important step in the RPTK-mediated signal transduction process. For review of the importance of dimerization of RPTKs, *see* 5 Lemmon and Schlessenger, 1994, *Trends in Biochem. Sci.* 19: 459-463; and Ullrich and Schlessenger, 1990, *Cell* 61:203-212. Some growth factors, for example platelet-derived growth factor ("PDGF") and stem cell factor ("SCF"), are dimeric molecules that, by themselves, induce dimerization of their specific receptors. In contrast, other growth factors, such as fibroblast growth factors (FGFs), are monomeric molecules that must act in concert 10 with other molecules to induce dimerization of their specific receptors. *See* Schlessenger *et al.*, 1995, *Cell* 83: 357-360; Spivak-Kroizman *et al.*, 1994, *Cell* 79: 1015-1024; Ornitz *et al.*, 1992, *Mol. Cell. Biol.* 12: 240-247. In particular, FGFs typically function in concert with soluble or cell surface-bound heparin sulfate-containing proteoglycans (HSPGs).

The FGFR subfamily consists of at least 21 structurally related polypeptides, 15 designated FGFR1 through FGFR21, that are expressed in embryonic, fetal, and adult vertebrates. FGFR1 through FGFR4, are known as "high affinity FGFRs," due to their ability to bind appropriate fibroblast growth factors with a high affinity. These high affinity FGFRs are characterized by an extracellular ligand-binding domain which comprises three immunoglobulin (IG)-like domains (known as D1, D2, and D3), a single transmembrane 20 helix, and a cytoplasmic domain containing tyrosine kinase activity. *See* Lee *et al.*, 1989, *Science* 245: 57-60; Jaye *et al.*, 1992, *J. Mol. Biol.* 227: 840-851; Johnson & Williams, 1993, *Adv. Cancer. Res.* 60: 1-41. Each of the four high affinity FGFRs binds to a specific subset of FGFs. Ornitz *et al.*, 1996, *J. Biol. Chem.* 271: 15292-15297.

Naturally occurring variants of the high affinity FGFRs lacking D1, or D1 and the 25 linker region between D1 and D2 known as the "acid box," have been identified. These variant FGFRs retain the ability to bind appropriate FGFs with high affinity, suggesting that the D2 and D3 regions are sufficient to confer FGF binding ability and specificity. *See* Crumley *et al.*, 1991, *Oncogene* 6: 2255-2262; Dionne *et al.*, 1990, *EMBO J.* 9: 2685-2692; Johnson and Williams, 1993, *Adv. Cancer. Res.* 60: 1-41. In particular, D3 has been shown to 30 play a critical role in the binding specificity of FGFRs. *See* Bottaro, *et al.*, 1990, *J. Biol. Chem.* 265: 12767-12770; Miki *et al.*, 1992, *Proc. Natl. Acad. Sci.* 89: 246-250; Dell *et al.*, 1992, *J. Biol. Chem.* 267: 21225-21229; Yayon *et al.*, 1992 *EMBO J.* 11: 1885-1890.

Recently, three dimensional structures of the intracellular catalytic domains of various PTKs have been described in International Publication No. WO 98/07835, U.S. Patent Application Serial No. 60/034,168, filed December 19, 1996, and U.S. Patent No. 5,942,428, issued on August 24, 1999, each of which is hereby incorporated herein by reference in its entirety including all claims, drawings, tables, and figures.

Despite recent advances in the understanding of signal transduction and function of the receptor PTKs and their ligands, there remains a need in the art for the atomic-level characterization and analysis of such molecules, particularly with respect to the design and synthesis of novel and improved therapeutic molecules.

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Summary

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The present invention relates to the three dimensional structures of receptor protein tyrosine kinases and/or their ligands. These molecular structures may include an RPTK or ligand thereof, alone or as a complex including one or more ligands. In particular, this application relates to molecular structures comprising a polypeptide which includes the extracellular domain of a receptor protein tyrosine kinase, alone and in complexes comprising one or more ligands. In another aspect, the application describes molecular structures comprising a polypeptide which includes the receptor binding core of a growth factor, such as stem cell factor, alone or in a complex with one or more ligands such as a receptor protein tyrosine kinase.

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The present application concerns solving and using the three dimensional structures of receptor protein tyrosine kinases, and more particularly to structures including the extracellular domain of receptor protein tyrosine kinases, alone and in complexes comprising one or more ligands. As an example, X-ray crystallographic techniques are used herein to determine the three dimensional structure of certain RPTK extracellular domains bound to certain ligands, such as FGF molecules or SCF molecules, at atomic resolution. The application also concerns solving and using the three dimensional structures of stem cell factor, and more particularly to structures including the receptor binding core of stem cell factor, alone and in complexes comprising one or more ligands.

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The three dimensional structures described herein elucidate specific interactions between receptor protein tyrosine kinases and/or ligands bound to them. The coordinates that define the three dimensional structures of receptor protein tyrosine kinases are useful for

determining three dimensional structures of receptor RPTKs with unknown structure. In addition, the coordinates are also useful for designing and identifying modulators of receptor protein tyrosine kinase function. These modulators are potentially useful as therapeutics for treating or preventing disease, including (but not limited to) cell proliferative diseases, such as cancer, tumorigenic angiogenesis, atherosclerosis, and arthritis. Alternatively, cellular proliferation can be induced therapeutically, for example angiogenesis may be used to ameliorate coronary artery disease by inducing collateral vascularization.

Thus in a first aspect, the invention features a crystalline form of a polypeptide corresponding to all or a portion of the extracellular domain of an RPTK. In certain embodiments, the invention features a crystalline form of an RPTK bound to a ligand or ligand analog. In typical embodiments, the RPTK is an FGFR, such as FGFR1 or FGFR2, and the ligand is an FGF, such as FGF1 or FGF2. In particularly suitable embodiments, the polypeptide comprises residues 150-360 of FGFR1 or residues 150-360 of FGFR2, the sequences of which are shown in Figure 4. The ligand can be a fibroblast growth factor, such as an FGF1 including the amino acid sequence as shown in Figure 17 or an FGF2 including the amino acid sequence as shown in Figure 17.

The term "crystalline form," in the context of the invention, refers to a crystal formed from an aqueous solution comprising a purified polypeptide. In certain embodiments, a crystal is formed from an aqueous solution comprising all or part of the extracellular domain of an RPTK. A crystalline form of a polypeptide is characterized as being capable of diffracting x-rays in a pattern defined by one of the crystal forms depicted in Blundel *et al.*, 1976, *Protein Crystallography*, Academic Press, and in Hahn, 1996, *The International Tables for Crystallography, Volume A*, Fourth Edition, Kluwer Academic Publishers. In preferred embodiments, a crystalline form may also be formed from a purified polypeptide corresponding to all or part of the extracellular domain of an RPTK in a complex with one or more ligands or ligand analogs, as defined herein.

A crystalline form of an RPTK may also comprise a crystal formed from an aqueous solution comprising a purified polypeptide corresponding to all or part of the extracellular domain of an RPTK, with or without a complexed ligand or ligand analogue, into which one or more heavy atoms are introduced. Preferably, introduction of a heavy atom results in as minimal a change to the original crystalline structure as possible. A heavy atom can be

introduced into the protein crystal by well known techniques. Preferred reagents for introduction of heavy atoms are platinum tetrachloride, mercuric acetate, ethyl mercury thiosalicylate, iridium hexachloride, gadolinium sulfate, samarium acetate, gold chloride, uranyl acetate, mercury chloride, and ethyl mercury chloride.

5 The term “receptor protein tyrosine kinase,” or “RPTK,” as used herein refers to an enzyme comprising an intracellular catalytic domain capable of transferring the high energy phosphate of adenosine triphosphate to a tyrosine residue located on a protein target, an extracellular domain that serves as a receptor for a specific ligand or set of ligands, and a membrane-spanning domain linking the intracellular and extracellular domains. *In vivo*, the
10 binding of a ligand to its receptor results in receptor dimerization and activation of the intracellular catalytic domain. Preferred RPTKs of the invention are PDGFR, SCFR, EGFR, VEGFR, HGFR, neurotrophinR, HER2, HER3, HER4, InsulinR, IGFR, CSFIR, FLK, KDR, VEGFR2, CCK4, MET, TRKA, AXL, TIE, EPH, RYK, DDR, ROS, RET, LTK, ROR1, or MUSK. More preferably, a receptor PTK of the invention is a member of the FGFR family,
15 such as FGFR1, FGFR2, FGFR3, and FGFR4. Certain receptor PTKs have no known ligand, and are referred to as “orphan receptor PTKs.”

 The term “FGFR1” refers to one member of multiple receptor PTKs that are homologous to one another, and which bind FGF. In this context, the term “homologous” preferably refers to about 70% or greater amino acid identity between two members of the
20 FGFR family, more preferably at least about 80% amino acid identity, and most preferably at least about 90% amino acid identity. The term “FGFR1” includes human FGFR1 which comprises or consists of the amino acid sequence of residues 150-360 of FGFR1 as shown in Figure 4. “Homologous” in this and other contexts also includes molecules of similarity sufficient to indicate relation by a common origin or archetype.

25 As used herein, the term “extracellular domain” refers to all or a portion of the region of an RPTK that exists outside the plasma membrane of a cell. Preferably, an extracellular domain is anchored to the plasma membrane by a polypeptide region that associates with the plasma membrane, and most preferably by a polypeptide region that is embedded within or crosses the plasma membrane. An extracellular domain can also be a soluble domain that is
30 not anchored to the plasma membrane of a cell. Most preferably, an extracellular domain comprises one or more binding sites for one or more ligands.

RPTK extracellular domains can comprise one or more known structural motifs. Preferably, these structural motifs can be one or more of the following: cysteine-rich regions, fibronectin III-like domains, Ig-like domains, EGF-like domains, factor VIII-like domains, and Kringle domains. Most preferred are RPTKs comprising one or more IG-like domains.

5 For example, FGFR1, FGFR2, FGFR3, and FGFR4 each contain three IG-like domains, labeled D1, D2, and D3. Other preferred RPTKs comprising IG-like domains include, but are not limited to, PDGFR, c-Kit, Flk1, Flk2, Flk4, KLG, TrkA, TrkB, TrkC, Axl, Tie, c-Eyk, and Elk.

The term "ligand" as used herein refers to a molecule that specifically binds to a receptor. In various embodiments, ligands are growth factors, cytokines, lymphokines, or hormones. Preferred ligands include, but are not limited to, epidermal growth factors, insulin, platelet-derived growth factors, stem cell factors, vascular endothelial growth factors, hepatocyte growth factors, and neurotrophins. Particularly preferred ligands are fibroblast growth factors.

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The term "fibroblast growth factor" as used herein refers to a family of polypeptide growth factors that share extensive sequence homologies and a common structural fold. At the time of the invention, the FGF family contains about 21 known members, named FGF1 through FGF21. Those skilled in the art will understand that other members of the FGF family may be later identified and used in practicing the present invention. FGFs bind to FGFRs, and to HSPGs. Preferred FGFs are FGF1, FGF2, FGF3, and FGF4.

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The term "ligand analog" as used herein refers to a molecule that is structurally or functionally similar to a ligand and that binds to the ligand binding site on a polypeptide. A ligand analog may be structurally similar to a ligand if the analog results from the substitution, addition, or deletion of one or more atoms, functional groups, or amino acid residues of a ligand. A ligand analog is functionally similar to a ligand if the ligand analog binds to the ligand binding site of the ligand receptor, or if binding of the ligand analog to the ligand receptor results in a similar biochemical event(s) to those resulting from ligand binding. Such a ligand analog may also be referred to as a ligand "mimic."

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Binding of a ligand analog may also result in an inhibition of one or more biochemical events which result from ligand binding, or may act as a competitor of ligand binding. Such a ligand analog may also be referred to as an "inhibitor." A ligand analog may also bind to the putative ligand binding site of an orphan receptor PTK.

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A ligand analog may preferably bind to its ligand receptor with lower, equal, or greater affinity than does the corresponding ligand. In certain embodiments, a ligand analog may be a mutant ligand. The term "mutant" is defined herein.

5 The term "bind" as used herein refers to a specific interaction of two or more molecules. Binding preferably refers to noncovalent binding. Such binding is typically mediated by one or more of hydrogen-bonding, van der Waals interactions, aromatic interactions, electrostatic interactions, and hydrophobic interactions. In certain embodiments, binding can refer to covalent binding of two or more molecules.

10 The term "catalytic domain" refers to a region of a protein that can exist as a separate entity from the protein, but that retains complete or partial catalytic function. The catalytic domain of a protein tyrosine kinase is characterized as having considerable amino acid identity to the catalytic domain of other protein tyrosine kinases. The catalytic domain of a protein tyrosine kinase is also characterized as being a polypeptide that is soluble in solution.

15 The term "considerable amino acid identity" preferably refers to at least about 30% identity, more preferably at least about 35% identity, and most preferably at least about 40% identity. These degrees of amino acid identity refer to the identity between different protein tyrosine kinase families. Amino acid identity for members of a given protein tyrosine kinase family range from about 55% to about 90%.

20 The term "identity" as used herein refers to a property of sequences that measures their similarity or relationship. Identity is measured by dividing the number of identical residues in the two sequences by the total number of residues and multiplying the product by 100. Thus, two copies of exactly the same sequence have 100% identity, but sequences that are less highly conserved and have deletions, additions, or replacements have a lower degree of identity. Two sequences may also be homologous to one another. The term "homologous" is defined herein, and can include, but is not limited to molecules (*e.g.*, proteins) of similarity
25 sufficient to indicate relation by a common origin or archetype.. Those skilled in the art will recognize that several computer programs are available for determining sequence identity and homology, including BLAST (Altschul, *et al.*, 1990, *J. Mol. Biol.* 215:403-410) and FASTA (Pearson and Lipman, 1988, *Proc. Natl. Acad. Sci. USA* 85:2444-2448).

30 The term "functional" refers to the ability of a portion of a protein to retain all or partial function of the intact protein. For example, a functional RPTK catalytic domain may

retain the ability to convert a substrate into a product by phosphorylating the substrate, while a functional RPTK extracellular domain may retain the ability to bind to its ligand.

In certain embodiments, a polypeptide can exist as an extracellular domain, even though it is not functional. For example, a polypeptide corresponding to an extracellular domain may not comprise all of the structures necessary for binding a ligand or ligand analog. In these embodiments, a measure of an RPTK extracellular domain can be a polypeptide that is homologous to other RPTK extracellular domains.

In another embodiment, the crystal comprises a polypeptide, which includes an extracellular domain of a receptor protein tyrosine kinase, and a ligand bound to the extracellular domain. For example, the receptor protein tyrosine kinase can be a fibroblast growth factor receptor, such as FGFR1 or FGFR2, and the ligand can be a fibroblast growth factor, such as FGF1 or FGF2. The crystal may also include a sulfated oligosaccharide bound to the receptor protein tyrosine kinase and/or a ligand bound thereto. The size (and thus molecular weight) of the sulfated oligosaccharide may vary. Examples of suitable sulfated oligosaccharide which may be contained in the crystal include a sulfated disaccharides, hexasaccharides, octasaccharides, decasaccharides, dodecasaccharides. Preferably, the sulfated oligosaccharide is sulfated mucooligosaccharide, such as heparin. In a particular aspect of this embodiment, the crystal includes a FGF:FGFR:heparin ternary complex. For example, the crystal can include a FGF:FGFR:heparin ternary complex such as an FGF1:FGFR1:heparin ternary complex, an FGF2:FGFR1:heparin ternary complex, an FGF1:FGFR2:heparin ternary complex, or an FGF2:FGFR2:heparin ternary complex.

In certain other aspects, a crystal may comprise a polypeptide which includes the receptor binding core of a stem cell factor. The receptor binding core generally has a three dimensional structure which includes a four-helix bundle and two β strands. Stem cell factors and fragments containing the receptor binding core typically crystallize in a form which includes a homodimer of the polypeptide. While the monomers which make up the homodimer may be covalently linked, e.g., by one or more intermolecular disulfide bonds, the SCF crystals described herein include a noncovalent homodimer. The SCF homodimer forms orthorhombic crystal which has unit cell dimensions: $a = 72.47\text{\AA}$, $b = 83.45\text{\AA}$ and $c = 89.15\text{\AA}$. The SCF homodimer may also be crystallized (e.g., in the presence of to form monoclinic crystals. Monoclinic crystals of a noncovalent SCF homodimer were used to obtain the atomic structural coordinates shown in Table 4. These atomic coordinates are for

crystals formed from a homodimer of a polypeptide which contains amino acid residues 1-141 of stem cell factor. These crystals have C2 symmetry. Crystals of this type may also include an RPTK, such as *c-kit* (SCFR) bound to a stem cell factor or fragment thereof.

Preferably, the crystal includes *c-kit* bound to the receptor binding core of a stem cell factor.

5 The term "polypeptide" refers to an amino acid chain representing a portion of, or the entire sequence of, amino acid residues comprising a protein.

 The term "association" refers to a condition of proximity between a chemical entity or compound, or portions or fragments thereof, and RPTK, or portions or fragments thereof. The association may be non-covalent, i.e., where the juxtaposition is energetically favored
10 by, e.g., hydrogen-bonding, van der Waals, electrostatic or hydrophobic interactions, or it may be covalent.

 The terms "heavy atom" and "heavy metal atom" refer to an atom that is a transition element, a lanthanide metal, or an actinide metal. Lanthanide metals include elements with atomic numbers between 57 and 71, inclusive. Actinide metals include elements with atomic
15 numbers between 89 and 103, inclusive. In preferred embodiments, a crystal of the invention can comprise one or more heavy metal atoms. Such a crystal is referred to herein as a "derivative crystal."

 In another aspect, the invention features a crystalline form of a polypeptide corresponding to the D2-D3 region of an RPTK extracellular domain. In preferred embodiments, the invention
20 features a crystalline form of the D2-D3 region of a receptor PTK extracellular domain bound to a ligand or ligand analog. In preferred embodiments, the RPTK is an FGFR, such as FGFR1 or FGFR2, and the ligand is an FGF, preferably FGF1 or FGF2. In particularly preferred embodiments, the polypeptide comprises residues 150-360 of FGFR1 or residues 150-360 of FGFR2 the sequences of which are shown in Figure 4. The ligand may
25 counterpart protein or a mimic thereof. For example, where the RPTK includes the extracellular binding domain of FGFR1 or FGFR2, the ligand can be a fibroblast growth factor, such as an FGF1 including the amino acid sequence as shown in Figure 17 or an FGF2 including the amino acid sequence as shown in Figure 17.

 The term "D2-D3 region" as used herein refers to the second and third Ig-like
30 domains of an FGFR. The term "Ig-like domain" is well known to those of skill in the art. In certain embodiments, the D2-D3 region of the invention may not comprise the entire second

and third Ig-like domains, but contain sufficient residues to provide a binding site for the ligand of the FGFR. Most preferably, the term "D2-D3 region" refers to proteins which include residues 150-360 of human FGFR1.

5 The term "mutant" refers to a polypeptide which is obtained by replacing at least one amino acid residue in a native RPTK or polypeptide ligand with a different amino acid residue. Mutation can also be accomplished by adding and/or deleting amino acid residues within the native polypeptide or at the N- and/or C-terminus of a polypeptide. Preferably, a mutant polypeptide has substantially the same three-dimensional structure as the native polypeptide.

10 The term "having substantially the same three-dimensional structure" as used herein refers to a set of atomic structure coordinates that have a root mean square deviation (r.m.s.d.) of less than or equal to about 2 Å when superimposed with the atomic structure coordinates of the native polypeptide from which the mutant is derived, when at least about 50% to 100% of the C α atoms of the native tyrosine kinase are included in the superposition.

15 In another aspect, the invention relates to a crystalline form of an RPTK extracellular domain bound to a ligand defined by the structural coordinates set forth in Table 1 or Table 2.

The term "atomic structural coordinates" as used herein refers to a data set that defines the three dimensional structure of a molecule or molecules. Structural coordinates can be slightly modified and still render nearly identical three dimensional structures. A measure
20 of a unique set of structural coordinates is the root-mean-square deviation of the resulting structure. Structural coordinates that render three dimensional structures that deviate from one another by a root-mean-square deviation of less than about 1.5 Å may be viewed by a person of ordinary skill in the art as identical. Hence, the structural coordinates set forth in Tables 1-4 and 6 are not limited to the values defined therein.

25 The use of X-ray crystallography can elucidate the three dimensional structure of crystalline forms of the invention. Typically, the first characterization of crystalline forms by X-ray crystallography can determine the unit cell shape and its orientation in the crystal. The term "unit cell" refers to the smallest and simplest volume element of a crystal that is completely representative of the unit of pattern of the crystal. The dimensions of the unit cell
30 are defined by six numbers: dimensions a, b and c and angles α , β and γ . A crystal can be viewed as an efficiently packed array of multiple unit cells. Detailed descriptions of crystallographic terms are described in Hahn, 1996, *The International Tables for*

Crystallography, Volume A, Fourth Edition, Kluwer Academic Publishers; and Shmueli, *The International Tables for Crystallography, Volume B*, First Edition, Kluwer Academic Publishers.

In another aspect, the invention features a crystalline form of a polypeptide
5 corresponding to the D2-D3 region of a receptor PTK extracellular domain bound to a ligand
or ligand analog, where the crystal is characterized by having tetragonal unit cells and space
group symmetry $P4_12_12$. In preferred embodiments, the RPTK is an FGFR, preferably
FGFR1, and the ligand is an FGF, preferably FGF2. In particularly preferred embodiments,
the polypeptide includes residues 150-360 of FGFR1 or residues 150-360 of FGFR2, the
10 sequences of which are shown in Figure 4. Most preferably, the invention features a
crystalline form of FGFR1 D2-D3 bound to FGF2, where the tetragonal unit cells of the
crystal have dimensions of about $a=98.5 \text{ \AA}$, $b=98.5 \text{ \AA}$, $c=197.0 \text{ \AA}$ and $\beta=90^\circ$.

In yet another aspect, the invention features a crystalline form of a polypeptide
corresponding to the D2-D3 region of a receptor PTK extracellular domain bound to a ligand
15 or ligand analog, where the crystal is characterized by having tetragonal unit cells and space
group symmetry $P1$. In preferred embodiments, the RPTK is an FGFR, preferably FGFR1,
and the ligand is an FGF, preferably FGF1. In particularly preferred embodiments, the
polypeptide comprises residues 150-360 of FGFR1 or residues 150-360 of FGFR2, the
sequences of which are shown in Figure 4. Most preferably, the invention features a
20 crystalline form of FGFR1 D2-D3 bound to FGF1, where the tetragonal unit cells of the
crystal have dimensions of about $a=62.55 \text{ \AA}$, $b=64.06 \text{ \AA}$, $c=64.14 \text{ \AA}$, $\alpha=93.40^\circ$, $\beta=111.17^\circ$,
and $\gamma=97.18^\circ$.

In yet another aspect, the invention features a crystalline form of a polypeptide
corresponding to the D2-D3 region of a receptor PTK extracellular domain bound to a ligand
25 or ligand analog, where the crystal is characterized by having triclinic unit cells and space
group symmetry $P1$. In preferred embodiments, the RPTK is an FGFR, such as FGFR2, and
the ligand is an FGF, such as FGF2. In particularly preferred embodiments, the polypeptide
comprises residues 150-360 of FGFR2, the sequence of which are shown in Figure 4, and
FGF2 has the sequence set forth in Figure 17. For example, there is a crystalline form of
30 FGFR2 D2-D3 bound to FGF2 having triclinic unit cells with dimensions of about $a=72.20$
 \AA , $b=71.68 \text{ \AA}$, $c=90.92 \text{ \AA}$, $\alpha=90.53^\circ$, $\beta=89.98^\circ$, and $\gamma=89.99^\circ$.

The term "space group" refers to the symmetry of a unit cell. In a space group designation (e.g., P4₁2₁2, or P1) the capital letter indicates the lattice type and the other symbols represent symmetry operations that can be carried out on the unit cell without changing its appearance.

5 The term "lattice" in reference to crystal structures refers to the array of points defined by the vertices of packed unit cells.

 The term "symmetry operations" refers to geometrically defined ways of exchanging equivalent parts of a unit cell, or exchanging equivalent molecules between two different unit cells. Examples of symmetry operations are screw axes, centers of inversion, and mirror
10 planes.

 By "isolated" in reference to a polypeptide is meant a polymer of, for example, 6, 12, 18 or more amino acids linked to each other by chemical (e.g., peptide) bonds, including polypeptides that are isolated from natural or recombinant sources or that are chemically synthesized. The isolated polypeptides of the present invention are unique in the sense that
15 they are not found in a pure or separated state in nature. Use of the term "isolated" indicates that a naturally occurring sequence, or an analog thereof, has been removed from its normal cellular environment. Thus, the sequence may be in a cell-free solution or placed in a different cellular environment. The term does not imply that the sequence is the only amino acid chain present, but that it is essentially free (about 90 - 95% pure at least) of other
20 material.

 The term "enriched" as used herein in reference to a polypeptide refers to a specific amino acid sequence constituting a significantly higher fraction of the total of polypeptides present in the cells or solution of interest than in the cells or solution from which the sequence was taken. Preferably, a polypeptide is enriched about 2-fold, about 3-fold, about 5-
25 fold, about 10-fold, about 20-fold, about 50-fold, or about 100-fold. Enrichment may be effected by preferential reduction in the amount of other polypeptides, or by a preferential increase in the amount of the specific polypeptide of interest, or by a combination of the two. However, it should be noted that "enriched" does not imply that there are no other polypeptides present, just that the relative amount of the polypeptide of interest has been
30 significantly increased. The term "significant" here is used to indicate that the level of increase is useful to the person making such an increase, and generally means an increase

relative to other amino acids of about at least 2 fold, more preferably about 2-fold, about 3-fold, about 5-fold, about 10-fold, about 20-fold, about 50-fold, about 100-fold, or more.

It is also advantageous for some purposes that an amino acid sequence be in purified form. The term "purified" as used herein in reference to a polypeptide does not refer to absolute purity (such as a homogeneous preparation); instead, it refers to a polypeptide that is relatively purer than in the natural environment. Preferably, a polypeptide is purified about 2-fold, about 3-fold, about 5-fold, about 10-fold, about 20-fold, about 50-fold, or about 100-fold. Most preferably, purification of at least one order of magnitude, preferably two or three orders, and more preferably four or five orders of magnitude is expressly contemplated. In preferred embodiments, the substance is free of contamination at a functionally significant level.

In another aspect, the invention features a method for creating crystalline forms described herein. The method may utilize the polypeptides described herein to form a crystal. The method comprises the steps of:

- (a) mixing a volume of polypeptide solution with a reservoir solution; and
- (b) incubating the mixture obtained in step (a) over the reservoir solution in a closed container, under conditions suitable for crystallization.

Preferably, the polypeptide solution comprises about 1 mg/ml to about 50 mg/ml of the polypeptide to be crystallized, and most preferably about 1 mg/ml, 2 mg/ml, 5 mg/ml, about 10 mg/ml, about 15 mg/ml, about 20 mg/ml, about 25 mg/ml, about 30 mg/ml, about 35 mg/ml, about 40 mg/ml, about 45 mg/ml, and about 50 mg/ml. The polypeptide solution is preferably buffered to between about pH 6.5 and about pH 9.5, most preferably about pH 8.5. In preferred embodiments, the solution also comprises salt, preferably in the form of KCl or NaCl, between about 1 mM and about 500 mM, most preferably about 150 mM. In certain embodiments, the reservoir solution preferably comprises between about 0.5 and about 3 M ammonium sulfate, most preferably about 1.6 M ammonium sulfate, and between about 5% and about 50% glycerol, most preferably 20% glycerol. In other embodiments, the reservoir solution preferably comprises between about 5% and about 50% polyethylene glycol, and most preferably about 20%, and between 0.05 M and 0.5 M Li_2SO_4 , most preferably about 0.2 M. The reservoir solution is preferably buffered to between about pH 6.5 and about pH 9.5, and most preferably about pH 8.5. These processes are described in detail in the section entitled "Detailed Description of the Invention."

In another aspect, the invention features a three dimensional representation of a structure of an RPTK extracellular domain, alone or in complex with a ligand or ligand analog. In preferred embodiments, the invention features a three dimensional representation of a structure of the D2-D3 region of a receptor PTK extracellular domain bound to a ligand or ligand analog. In preferred embodiments, the RPTK is an FGFR, such as FGFR1 or FGFR2, and the ligand is an FGF, preferably FGF1 or FGF2. In one group of preferred embodiments, the polypeptide comprises residues 150-360 of FGFR1 or residues 150-360 of FGFR2, the sequences of which are shown in Figure 4. The ligand can be a fibroblast growth factor, such as an FGF1 including the amino acid sequence as shown in Figure 17 or an FGF2 including the amino acid sequence as shown in Figure 17.

The term "three dimensional representation" as used herein refers to any non-natural representation of one or more molecules which utilize a three dimensional coordinate space. The skilled artisan will recognize that the atomic structural coordinates in Tables 1-4 and 6, for example, use a three dimensional coordinate space, and thus are three dimensional representations. In preferred embodiments, a three dimensional representation can be a model prepared from the atomic coordinates of one or more molecules. In particularly preferred embodiments, a three dimensional representation can be a model prepared from the atomic coordinates of one or more molecules that exists in a computer's memory and/or that is displayed on a computer's screen. The coordinates disclosed herein provide the skilled person with the information needed to study molecular structures and interactions. Comparable data can be obtained by crystallizing the molecules in view of the teachings contained herein and conducting x-ray analysis in accordance with the teachings contained herein. Such data so obtained are within the scope of the present invention. Moreover, variations made to the data contained herein are within the scope of the present invention.

In another aspect, the invention features a recombinant DNA encoding an RPTK extracellular domain. For example, the recombinant DNA can include a coding strand which includes a nucleotide sequence coding for amino acid residues 150-360 of FGFR1 or residues 150-360 of FGFR2, the sequences of which are shown in Figure 4.

In yet another aspect, the invention relates to methods of determining three dimensional structures of RPTK extracellular domains with unknown structure by utilizing known atomic structural coordinates of an RPTK extracellular domain. These methods can

relate to homology modeling, molecular replacement, and nuclear magnetic resonance methods.

In preferred embodiments, the invention relates to a method of determining three dimensional structures of RPTK extracellular domains with unknown structures by homology
5 modelling. These methods use the known atomic structural coordinates of an RPTK extracellular domain in conjunction with the amino acid sequences of receptor PTKs having unknown three dimensional structures. The methods comprise the steps of: (a) aligning an amino acid sequence of an RPTK with unknown structure with that of an RPTK with known atomic structural coordinates, where alignment is achieved by matching homologous regions
10 of the amino acid sequences; (b) transferring the atomic structural coordinates of each of the homologous amino acids from the known atomic structural coordinates to a computer representation of a structure of the corresponding amino acids in the RPTK sequence with unknown structure; and (c) determining low energy conformations of the resulting RPTK structure.

15 Preferably, the known atomic structural coordinates are of an RPTK extracellular domain bound to a ligand or ligand analog. More preferably, the known atomic structural coordinates are of an FGFR extracellular domain, preferably FGFR1, bound to an FGF, preferably FGF1 or FGF2. Most preferably, the known atomic structural coordinates are the coordinates set forth in Table 1 or Table 2.

20 The term "amino acid sequence" describes the order of amino acids in the amino acid chain comprising a polypeptide corresponding to all or a portion of an RPTK. In preferred embodiments, the amino acid sequence describes the order of amino acids in all or a portion of the extracellular domain of an RPTK.

The term "aligning" describes matching the beginning and the end of two or more
25 amino acid sequences. Homologous amino acid sequences are placed on top of one another during the alignment process.

The term "homologous" as used herein in reference to protein sequences describes amino acids in two sequences that are identical or have similar side-chain chemical groups
30 (*e.g.*, aliphatic, aromatic, polar, negatively charged, or positively charged). Thus, protein sequences of similarity sufficient to indicate relation by a common origin or archetype are considered to possess homology, for instance. Examples of homologous amino acids are provided below.

The term “corresponding” refers to an amino acid that is aligned with another in the sequence alignment mentioned above.

The term “determining the low energy conformation” describes a process of changing the conformation of the RPTK structure such that the structure is of low free energy. The RPTK structure may or may not have a molecule(s), such as a ligand or ligand analog, bound to it.

The term “low free energy” describes a state where the molecules are in a stable state as measured by the process. A stable state is achieved when favorable interactions are formed within the complex.

The term “favorable interactions” refers to, among other things, hydrophobic, aromatic, and ionic forces, and hydrogen bonds.

The term “compound” refers to an organic molecule. The term “organic molecule” refers to a molecule which has at least one carbon atom in its structure. The compound can have a molecular weight of less than 6kDa. Both the geometry of the compound and the interactions formed between the compound and the polypeptide preferably govern high affinity binding between the two molecules. High affinity binding is preferably governed by a dissociation equilibrium constant on the order of 10^{-6} M or less

The term “binding site” refers to a location on an enzyme or polypeptide chain to which one or more molecules may bind. In preferred embodiments, a binding site can be a ligand binding site, a HSPG binding site, or an interaction surface between two receptors which form a dimer upon ligand binding.

The term “interactions” refers to hydrophobic, aromatic, and ionic forces and hydrogen bonds formed between atoms. Such interactions can be “intramolecular,” or within the same molecule, or “intermolecular,” or between separate molecules.

The term “cofactor” refers to a compound that may, in addition to the substrate, bind to a protein and undergo a chemical reaction. Multiple co-factors are nucleotides or nucleotide derivatives, such as phosphate and nicotinamide derivatives of adenosine.

The term “substrate” refers to a compound that reacts with an enzyme. Enzymes can catalyze a specific reaction on a specific substrate. For example, RPTKs can phosphorylate specific protein and peptide substrates on tyrosine moieties. In addition, nucleotides can act as substrates for protein kinases.

The term "substrate analog" refers to a compound that is structurally similar, but not identical, to a substrate. The substrate analog may be a nucleotide analog. Examples of nucleotide analogs are described below.

5 The term "allosteric effector" refers to a compound that causes allosteric interactions in a protein. The term "allosteric interactions" refers to interactions between separate sites on a protein. The sites can be different from the active site. The allosteric effector can enhance or inhibit catalytic activity by binding to a site that may be different than the active site.

The term "co-crystal" refers to a crystal where the polypeptide is in association with one or more compounds.

10 The term "ATP" refers to the chemical compound adenosine triphosphate.

The term "non-hydrolyzable" refers to a compound having a covalent bond that does not readily react with water. Examples of non-hydrolyzable analogs of ATP are AMP-PNP and AMP-PCP, whose structures are well known to those skilled in the art.

15 The term "AMP-PNP" refers to adenylyl imidodiphosphate, a non-hydrolyzable analog of ATP.

The term "AMP-PCP" refers to adenylyl diphosphonate, a non-hydrolyzable analogue of ATP.

"Alkyl" refers to a straight-chain, branched or cyclic saturated aliphatic hydrocarbon. Preferably, the alkyl group has 1 to 12 carbons. More preferably, it is a lower alkyl of from 1
20 to 7 carbons, more preferably 1 to 4 carbons. Typical alkyl groups include methyl, ethyl, propyl, isopropyl, butyl, isobutyl, tertiary butyl, pentyl, hexyl and the like. The alkyl group may preferably be optionally substituted with one or more substituents selected from the group consisting of hydroxyl, cyano, alkoxy, =O, =S, NO₂, halogen, N(CH₃)₂ amino, and SH.

25 "Alkenyl" refers to a straight-chain, branched or cyclic unsaturated hydrocarbon group containing at least one carbon-carbon double bond. Preferably, the alkenyl group has 2 to 12 carbons. More preferably it is a lower alkenyl of from 2 to 7 carbons, more preferably 2 to 4 carbons. The alkenyl group may preferably be optionally substituted with one or more substituents selected from the group consisting of hydroxyl, cyano, alkoxy, =O, =S, NO₂, halogen, N(CH₃)₂ amino, and SH.

30 "Alkynyl" refers to a straight-chain, branched or cyclic unsaturated hydrocarbon containing at least one carbon-carbon triple bond. Preferably, the alkynyl group has 2 to 12 carbons. More preferably it is a lower alkynyl of from 2 to 7 carbons, more preferably 2 to 4

carbons. The alkynyl group may preferably be optionally substituted with one or more substituents selected from the group consisting of hydroxyl, cyano, alkoxy, =O, =S, NO₂, halogen, N(CH₃)₂ amino, and SH.

"Alkoxy" refers to an "O-alkyl" group.

5 "Aryl" refers to an aromatic group which has at least one ring having a conjugated pi-electron system and includes carbocyclic aryl, heterocyclic aryl and biaryl groups. The aryl group may preferably be optionally substituted with one or more substituents selected from the group consisting of halogen, trihalomethyl, hydroxyl, SH, OH, NO₂, amine, thioether, cyano, alkoxy, alkyl, and amino.

10 "Alkaryl" refers to an alkyl that is covalently joined to an aryl group. Preferably, the alkyl is a lower alkyl.

"Carbocyclic aryl" refers to an aryl group wherein the ring atoms are carbon.

"Heterocyclic aryl" refers to an aryl group having from 1 to 3 heteroatoms as ring atoms, the remainder of the ring atoms being carbon. Heteroatoms include oxygen, sulfur, and nitrogen. Thus, heterocyclic aryl groups include furanyl, thienyl, pyridyl, pyrrolyl, N-15 lower alkyl pyrrolo, pyrimidyl, pyrazinyl, imidazolyl and the like.

"Amide" refers to -C(O)-NH-R, where R is alkyl, aryl, alkylaryl or hydrogen.

"Thioamide" refers to -C(S)-NH-R, where R is alkyl, aryl, alkylaryl or hydrogen.

20 "Amine" refers to a -N(R')R" group, where R' and R" are independently selected from the group consisting of alkyl, aryl, and alkylaryl.

"Thioether" refers to -S-R, where R is alkyl, aryl, or alkylaryl.

"Sulfonyl" refers to -S(O)₂-R, where R is aryl, C(CN)=C-aryl, CH₂CN, alkyaryl, sulfonamide, NH-alkyl, NH-alkylaryl, or NH-aryl.

25 The term "acyl" denotes groups -C(O)R, where R is alkyl as defined above, such as formyl, acetyl, propionyl, or butyryl.

30 In other preferred embodiments, the invention relates to methods of determining three dimensional structures of RPTK extracellular domains with unknown structures by applying the known atomic structural coordinates of an RPTK extracellular domain to incomplete X-ray crystallographic data sets for RPTK extracellular domains having unknown three dimensional structures. The methods comprise the steps of: (a) determining the positions of atoms in the unit cell by matching diffraction data from two crystals, where one data set is from a crystal comprising an RPTK of unknown structure and the other is from a crystal

comprising an RPTK having known atomic structural coordinates; and (b) determining a low energy conformation of the resulting RPTK structure.

Preferably, the complete diffraction data is from a crystal of an RPTK extracellular domain bound to a ligand or ligand analog. More preferably, the complete diffraction data is from a crystal of an FGFR extracellular domain, preferably FGFR1, bound to an FGF, preferably FGF1 or FGF2.

The diffraction data set from the crystal comprising an RPTK of unknown structure may be a complete data set or an incomplete data set. The term "incomplete data set" as used herein relates to a X-ray crystallographic data set that does not have enough information to give rise to a three dimensional structure.

In other preferred embodiments, the invention relates to methods of determining three dimensional structures of receptor PTK extracellular domains with unknown structure by applying the known atomic structural coordinates of an RPTK extracellular domain to nuclear magnetic resonance (NMR) data of RPTK extracellular domains having unknown three dimensional structures. The methods comprise the steps of: (a) determining the secondary structure of an RPTK extracellular domain of unknown three dimensional structure using NMR data; and (b) simplifying the assignment of through-space interactions of amino acids using the known atomic structural coordinates of an RPTK. The RPTK extracellular domain of unknown three dimensional structure may or may not be complexed with compounds, ligands or modulators.

Preferably, the known atomic structural coordinates are of an RPTK extracellular domain bound to a ligand or ligand analog. More preferably, the known atomic structural coordinates are of an FGFR extracellular domain, preferably FGFR1, bound to an FGF, preferably FGF1 or FGF2. Most preferably, the known atomic structural coordinates are the coordinates set forth in Table 1 or Table 2.

The term "secondary structure" describes the arrangement of amino acids in a three dimensional structure, such as in α -helix or β -sheet elements.

The term "through-space interactions" defines the orientation of the secondary structural elements in the three dimensional structure and the distances between amino acids from different portions of the amino acid sequence.

The term "assignment" defines a method of analyzing NMR data and identifying which amino acids give rise to signals in the NMR spectrum.

In another aspect, the invention features methods of identifying potential modulators of PTK function. By identifying one or more potential modulators from a larger group of molecules, it is possible to reduce the number of molecules that must be tested using costly and time-consuming biological assays. Thus, the methods described herein for identifying potential modulators of PTK function can provide increased efficiencies in identifying actual modulators of PTK function.

These potential modulators are preferably identified by docking a three dimensional representation of a structure of a compound with a three dimensional representation of the RPTK extracellular domain. The computer representation of the RPTK extracellular domain can be defined by atomic structural coordinates. In certain embodiments, one or more modulators are docked into the ligand binding site of the RPTK extracellular domain, and/or into the binding site for heparin sulfate-containing proteoglycans (HSPGs) of the RPTK extracellular domain.

In preferred embodiments, the method of identifying potential modulators of RPTK function comprises the steps of: (a) providing a three dimensional representation of the atomic structural coordinates of an RPTK and docking a three dimensional representation of a compound from a computer data base with the three dimensional representation of the RPTK; (b) determining a conformation of the resulting complex having a favorable geometric fit and favorable complementary interactions; and (c) identifying compounds that best fit the RPTK as potential modulators of RPTK function. The initial RPTK structure may or may not have one or more compounds, ligands, or modulators bound to it.

Preferably, the atomic structural coordinates are of an RPTK extracellular domain bound to a ligand or ligand analog. More preferably, the atomic structural coordinates are of an FGFR extracellular domain, preferably FGFR1, bound to an FGF, preferably FGF1 or FGF2. Most preferably, the atomic structural coordinates are the coordinates set forth in Table 1 or Table 2.

The term "modulator of RPTK function" as used herein refers to a compound or ligand analog which alters the catalytic activity of an RPTK. A modulator of RPTK function can either stimulate or inhibit RPTK catalytic activity. For example, inhibitory modulators may be one or more compounds or ligand analogs that disrupt dimerization of an RPTK, prevent dimerization of an RPTK, or prevent binding of an RPTK to its ligand or to HSPGs. Alternatively, a stimulatory modulator may be one or more compounds or ligand analogs that

stabilize dimer formation, or mimic the activity of the ligand of an RPTK, or mimic the activity of HSPGs.

The term “chemical group” refers to moieties that can form hydrogen bonds, hydrophobic, aromatic, or ionic interactions.

5 The term “docking” refers to a process of placing a compound, ligand or ligand analog in close proximity with an RPTK. In certain embodiments, docking can refer to placing a three dimensional representation of the compound, ligand, or ligand analog in close proximity with a three dimensional representation of the RPTK. The term can also refer to a process of finding low energy conformations of the resulting compound/RPTK,
10 ligand/RPTK, or ligand analog/RPTK complex.

The term “favorable geometric fit” refers to a conformation of the compound/RPTK, ligand/RPTK, or ligand analog/RPTK complex where the surface area of the compound, ligand, or ligand analog is in close proximity with a surface of the RPTK-site without forming unfavorable interactions. Unfavorable interactions can be steric hindrances between
15 atoms in the bound molecule and atoms in the RPTK.

The term “favorable complementary interactions” relates to hydrophobic, aromatic, ionic, and hydrogen bond donating, and hydrogen bond accepting forces formed between the compound, ligand, or ligand analog and the RPTK.

The term “potential” qualifies the term “modulator of RPTK function” because the
20 potential modulator of RPTK function may not yet have been tested for activity *in vitro* or *in vivo*.

The term “best fit” describes compounds, ligands, or ligand analogs that complexed the most surface area and/or form the most favorable complementary interactions with the receptor PTK in a given experiment. The term “best fit” can also refer to a subset of
25 compounds, ligands, or ligand analogs from amongst a larger group of compounds, ligands, or ligand analogs which complex the most surface area and/or form the most favorable complementary interactions with the receptor PTK. In preferred embodiments, a molecule which exhibits a best fit is in the 70th percentile or better of molecules tested in terms of complexing the most surface area and/or forming the most favorable complementary
30 interactions, more preferably a molecule which exhibits a best fit is in the 80th percentile or better of molecules tested, and most preferably, a molecule which exhibits a best fit is in the 90th percentile or better of molecules tested.

Other preferred embodiments of the invention are methods of identifying potential modulators of receptor PTK function. The method involves utilizing a three dimensional structure of a receptor PTK. The method comprises the steps of: (a) modifying a three dimensional representation of a receptor PTK having one or more compounds, ligands, or ligand analogs bound to it, where the three dimensional representations of the compounds, ligands, or ligand analogs and the receptor PTK are defined by atomic structural coordinates; (b) determining a conformation of the resulting complex having a favorable geometric fit and favorable complementary interactions; and (c) identifying the compounds, ligands, or ligand analogs that best fit the receptor PTK active-site as potential modulators of receptor PTK function.

Preferably, the atomic structural coordinates are of an RPTK extracellular domain bound to a ligand or ligand analog. More preferably, the atomic structural coordinates are of an FGFR extracellular domain, preferably FGFR1, bound to an FGF, preferably FGF1 or FGF2. Most preferably, the atomic structural coordinates are the coordinates set forth in Table 1 or Table 2.

The term "modifying" refers to replacing, deleting, or adding one or more chemical groups. Computer representations of the chemical groups can be selected from a computer data base.

Yet another preferred embodiment of the invention is a method of identifying potential modulators of RPTK function by operating modulator construction or modulator searching computer programs on the compounds, ligands, or ligand analogs complexed with the RPTK. The method comprises the steps of: (a) providing a three-dimensional representation of one or more compounds, ligands, or ligand analogs complexed with an RPTK, where the computer representations of the compounds, ligands, or ligand analogs and the receptor PTK are defined by atomic structural coordinates; and (b) searching a data base for compounds, ligands, or ligand analogs similar to the compounds, ligands, or ligand analogs using a compound searching computer program, or replacing portions of the compounds, ligands, or ligand analogs complexed with the RPTK with similar chemical structures from a data base using a compound construction computer program, where the representations of the compounds are defined by structural coordinates. The skilled artisan will recognize that a number of suitable computer programs are available for compound searching and construction, including UNITY™ (Tripos, Inc.) and CATALYST® (MSI, Inc.)

Preferably, the atomic structural coordinates are of an RPTK extracellular domain bound to a ligand or ligand analog. More preferably, the atomic structural coordinates are of an FGFR extracellular domain, preferably FGFR1, bound to an FGF, preferably FGF1 or FGF2. Most preferably, the known atomic structural coordinates are the coordinates set forth in Table 1 or Table 2.

The term "operating" as used herein refers to utilizing the three-dimensional conformation of molecules defined by the processes described herein in various computer programs.

The terms "similar compound," "similar ligand," and "similar ligand analog" refer to a compound, ligand, or ligand analog that has a similar geometric structure as compounds, ligands, or ligand analogs that can bind to a receptor PTK. The similar molecule can also have similar chemical groups as a molecule that is either bound to an RPTK or once bound to an RPTK. The similar chemical groups can form complementary interactions with the RPTK.

The term "compound searching computer program" describes a computer program that searches computer representations of compounds, ligands, or ligand analogs from a computer data base that have similar three dimensional structures and similar chemical groups as a compound of interest.

The term "similar chemical structures" as used herein refers to one or more chemical groups that share similar a similar geometry with one or more portions of another molecule. In preferred embodiments, a similar chemical structure shares a similar geometry with a molecule that is in a complex with an RPTK, or shares a similar geometry with a molecule that has been removed from an RPTK structure. Similar chemical structures can also refer to chemical groups that can form one or more complementary interactions with an RPTK that are similar to those formed between and an RPTK and a complexed molecule.

The term "replacing structures" refers to removing one or more portions of a molecule that is in a complex with an RPTK, or removing one or more portions of a molecule that has been removed from an RPTK, and connecting the broken bonds to produce a similar molecule.

The term "compound construction computer program" describes a computer program that replaces computer representations of chemical groups in a compound, ligand, or ligand analog with groups from a computer data base.

The term "similar three dimensional structure" describes two molecules with nearly identical shape and volume.

The methods for using the crystalline forms and three dimensional structures of the invention can relate to a broad range of protein kinases. Thus, in preferred embodiments, the invention relates to an RPTK. The RPTK is preferably PDGFR, EGFR, SCFR, VEGFR, 5 HGFR, neurotrophinR, HER2, HER3, HER4, InsulinR, IGFR, CSFIR, FLK, KDR, VEGFR2, CCK4, MET, TRKA, AXL, TIE, EPH, RYK, DDR, ROS, RET, LTK, ROR1, MUSK, members of the FGFR family, such as FGFR1, FGFR2, FGFR3, and FGFR4, or an orphan receptor PTK.

10 In another aspect, the invention features a potential modulator of RPTK function identified by methods disclosed in the invention.

Another aspect of the invention is a method for synthesizing a potential modulator of RPTK function or its pharmaceutically acceptable salts, isomers, metabolites, esters, amides, or prodrugs by a standard synthetic method known in the art. Synthetic procedures are 15 discussed below.

In another aspect, the invention features methods for identifying a modulator of RPTK function. The method comprises the steps of: (a) administering a potential modulator of RPTK function, ligand, ligand analog, or compound to cells; (b) comparing the level of RPTK phosphorylation between cells not administered the potential modulator, ligand, ligand 20 analog, or compound and cells administered the potential modulator; and (c) identifying the potential modulator, ligand, ligand analog, or compound as a modulator of RPTK function based on the difference in the level of receptor PTK phosphorylation. The skilled artisan will recognize that the difference in PTK phosphorylation required for a potential modulator, ligand, ligand analog, or compound to be identified as a modulator of RPTK function will 25 depend on the particular RPTK, the specificity of the modulator, the nature of the disorder associated with the RPTK function, etc.

The term "cells" refers to any type of cells either primary or cultured. Primary cells can be extracted directly from an organism while cultured cells rapidly divide and can be cultured in many successive rounds. Cells can be grown in a variety of containers including, 30 but not limited to flasks, dishes, and well plates.

The term "administer," as used in reference to cells, refers to a method of delivering a potential modulator, ligand, ligand analog, or compound to cells. The compound can be

prepared using a carrier such as dimethyl sulfoxide (DMSO) in an aqueous solution. The aqueous solution comprising the compound, also termed an "aqueous preparation", can be simply mixed into the medium bathing the layer of cells or microinjected into the cells themselves. The compounds may be administered to the cells using a suitable buffered
5 solution.

The term "suitable buffered solution" refers to an aqueous preparation of the compound that comprises a salt that can control the pH of the solution at low concentrations. Because the salt exists at low concentrations, the salt preferably does not alter the function of the cells.

10 The term "RPTK phosphorylation" refers to the presence of phosphate on the RPTK. Phosphates on RPTKs can be identified by antibodies that bind them specifically with high affinity.

In another aspect, the invention features a method of identifying a potential modulator of RPTK function as a modulator of RPTK function. The method comprises the steps of: (a)
15 administering a potential modulator of RPTK function to cells; (b) comparing the level of cell growth between cells not administered the potential modulator and cells administered the potential modulator; and (c) identifying the potential modulator as a modulator of RPTK function based on the difference in cell growth.

The term "cell growth" refers to the rate at which a group of cells divides. Cell
20 division rates can be readily measured by methods utilized by those skilled in the art.

Another aspect of the invention features a method of diagnosing a disease by identifying cells harboring a RPTK with inappropriate activity. The method comprises the steps of: (a) administering a modulator of RPTK function to cells; (b) comparing the rate of
25 cell growth between cells not administered the modulator and cells administered the modulator; and (c) diagnosing a disease by characterizing cells harboring a RPTK with inappropriate activity from the effect of the modulator on the difference in the rate of cell growth. The modulator can be identified by the methods of the invention.

The term "inappropriate activity" refers to an RPTK that regulates a step in a signal transduction process at a higher or lower rate than normal cells. Aberrations in the rate of
30 signal transduction can be caused by alterations in the stimulation of an RPTK by a growth factor, alterations in the activity of RPTK-specific phosphatase, over-expression of a RPTK in a cell, or mutations in the catalytic region of the RPTK itself.

The term “signal transduction process” describes the steps in a cascade of events where an extracellular signal is transmitted into an intracellular signal.

The term “RPTK -specific phosphatase” describes an enzyme that dephosphorylates a particular RPTK and thereby regulates that RPTK’s activity.

5 Another aspect of the invention is a method of treating a disease associated with a RPTK with inappropriate activity in a cellular organism, where the method comprises the steps of: (a) administering the modulator of RPTK function to the organism, where the modulator is in an acceptable pharmaceutical preparation; and (b) activating or inhibiting the RPTK function to treat the disease.

10 The term “organism” relates to any living being comprised of at least one cell. An organism can be as simple as one eukaryotic cell or as complex as a mammal.

The term “administering”, in reference to an organism, refers to a method of introducing the compound to the organism. The compound can be administered when the cells or tissues of the organism exist within the organism or outside of the organism. Cells
15 existing outside the organism can be maintained or grown in cell culture dishes. For cells harbored within the organism, many techniques exist in the art to administer compounds, including (but not limited to) oral, parenteral, dermal, ocular, subcutaneous, and rectal applications. For cells outside of the patient, multiple techniques exist in the art to administer the compounds, including (but not limited to) cell microinjection techniques, transformation
20 techniques, and carrier techniques.

The term “pharmaceutically acceptable composition” refers to a preparation comprising the modulator of RPTK activity. The composition is acceptable if it does not appreciably cause irritations to the organism administered the compound.

In preferred embodiments of the of the invention, the receptor PTK is selected from
25 the group consisting of PDGFR, SCFR, EGFR, VEGFR, HGFR, neurotrophinR, HER2, HER3, HER4, InsulinR, IGFR, CSFIR, FLK, KDR, VEGFR2, CCK4, MET, TRKA, AXL, TIE, EPH, RYK, DDR, ROS, RET, LTK, ROR1, MUSK, members of the FGFR family, such as FGFR1, FGFR2, FGFR3, and FGFR4, and orphan receptor PTKs.

The summary of the invention described above is non-limiting and other features and
30 advantages of the invention will be apparent from the following detailed description, and from the claims.

BRIEF DESCRIPTION OF THE FIGURES

FIG. 1 provides a ribbon diagram of the structure of a dimer of FGFR1 D2-D3 complexed with FGF2. Two views are related by a rotation of about 90° about the vertical axis. The D2 and D3 domains are shown in green and blue, respectively, the short linker connecting D2 and D3 is shown in gray, and the FGF2 molecules are shown in orange.

FIG. 2 provides a ribbon diagram of the structure of FGFR1 D2-D3 complexed with FGF1. The D2 and D3 domains are shown in green and blue, respectively, the short linker connecting D2 and D3 is shown in gray, and FGF1 is shown in orange.

FIG. 3 provides a topology diagram of the Ig folds of FGFR1 D2 and D3 in comparison to the Ig fold of telokin.

FIG. 4 provides a sequence alignment of the D2-D3 region of human FGF1, FGF2, FGF3, and FGF4.

Figure 5 shows ribbon diagrams of the FGF1-FGFR1 and FGF2-FGFR2 complexes with the Ig-like domains 2 (D2) and 3 (D3) are shown in green and cyan, respectively. The short linker that connects D2 and D3 is colored gray. FGF1 and FGF2 are shown in orange. The secondary structure assignments for FGFR1 and FGFR2 were obtained with the program PROCHECK (Laskowski et al., *J. Appl. Cryst.*, 26, 283-291 (1993)). The beta strands for D2 and D3 are labeled according to the strand nomenclature for the canonical I-set member telokin. The helix between betaA and betaA', gA, is a 3₁₀ helix. In both FGF1-FGFR1 and FGF2-FGFR2 structures, the betaC-betaC' loops in D3 are disordered. In addition, most of the segment between betaC' and betaE in D3 of FGF1-FGFR1 is disordered as well. In the FGF2-FGFR2 structure, this segment is well ordered and is colored purple. The amino- and carboxy-termini are denoted by NT and CT. The disulfide bonds in D2 and D3 are shown in ball-and-stick rendering with sulfur atoms colored yellow. The beta strands of FGF1 are labeled from 1 to 12 according to published nomenclature (Faham et al., *Curr. Opin. Struct. Biol.* 8, 578-586 (1998)). This figure was created using the programs Molscript (Kraulis, *J. Appl. Crystallogr.* 24, 946-950 (1991)) and Raster3D (Merrit et al., *Methods Enzymol.* 277, 505-524 (1997)).

Figure 6 shows Space-filling models of the FGF1-FGFR1 and FGF2-FGFR2 complexes. The view and the coloring for D2, D3, the linker and FGFs are the same as in Figure 5. To better visualize the binding interfaces on FGFs and on FGFRs, the molecules are pulled away from each other and rotated 90° about the vertical axis as indicated (left and

right panels). Residues in FGF1 and FGF2 are colored with respect to the FGFR regions with which they interact. FGF1 and FGF2 residues that interact with D2 are colored green, residues that interact with the linker region are colored gray, and residues that interact with D3 are colored cyan. FGF2 residues that interact with the betaC'-betaE segment (shown in purple) of FGFR2 are colored red. The residues in FGFR1 and FGFR2 that interact with FGF1 and FGF2, respectively, are colored orange. In addition, in the FGF2-FGFR2 structure, receptor residues in the betaC'-betaE segment that contact FGF2 are in red. Ligand and receptor residues are considered to be in the FGF-FGFR interface if at least one pair of atoms (side chain or main chain) has an inter-atomic distance of 3.8 Å or less. This figure was created using the programs Molscript and Raster3D.

Figure 7 shows a stereo view of detailed interactions in the hydrophobic interface between FGF2 and D2 of FGFR2

Figure 8 shows a stereo view of detailed interactions in the hydrophobic interface between FGF1 and D2 of FGFR1.

Figure 9 shows a stereo view of detailed interactions of the conserved network of hydrogen bonds between FGF2 and FGFR2 in the vicinity of Arg251 in the D2-D3 linker.

Figure 10 shows a stereo view of detailed interactions the network of hydrogen bonds between FGF1 and FGFR1 in the vicinity of Arg250 in the D2-D3 linker.

Figure 11 shows a stereo view of detailed interactions in the interface between FGF2 and the betaF-betaG loop of D3 in the FGF2-FGFR2 structure. At the right side of each stereo pair, a view of the whole structure in the exact orientation as in stereo views is shown and the region of interest is highlighted. Only side chains of interacting residues are shown. Color coding is the same as in Figure 7. Dotted lines represent hydrogen bonds.

Figure 12 shows a stereo view of detailed interactions in the interface between N-terminal sequences (prior to beta1) of FGF2 and D3 in the FGF2-FGFR2 structure. Views and coding are the same as in Figure 11.

Figure 13 shows a stereo view of detailed interactions in the interface between FGF2 and the betaC'-betaE segment (shown in purple) of D3 in the FGF2-FGFR2 structure. Views and coding are the same as in Figure 11.

Figure 14 shows a stereo view of detailed interactions in the interface between FGF1 and D3 in the FGF1-FGFR1 structure. Views and coding are the same as in Figure 11.

Figure 15 shows Structure-based sequence alignment of the ligand binding domains of D2 and D2-D3 linker of human FGF receptors.

Figure 16 shows Structure-based sequence alignment of the ligand binding domains of D3 of human FGF receptors.

5 Figure 17 shows structure-based sequence alignment of FGFs performed using the CLUSTALW program (Thompson et al., Nucleic Acids Res. 22, 4673-4680 (1994)). All of the FGFs used in this alignment are from human, with the exception of FGF15, for which only the chicken sequence is available. The secondary structure assignment is according to the published nomenclature, with the beta strands labeled from 1 through 12 (Faham et al.,
10 Curr. Opin. Struct. Biol. 8, 578-586 (1998)). The location and the length of the beta strands are shown on the top of the sequence alignment. FGF residues are colored with respect to the region on FGFR with which they interact: FGF residues that interact with D2 are colored green, residues that interact with the linker region are colored gray, and residues that interact with D3 are colored cyan. FGF residues that interact with the betaC'-betaE segment in D3
15 are colored red. A period indicates sequence identity to FGF2. A dash represents a gap introduced to optimize the alignment. A tilde at the C-terminus of FGF indicates that there are additional sequences down stream to the last amino acid shown. A star indicates that numbering does not start at the initiation methionine. Residue numbering for FGF2 is according to Springer et al., J. Biol. Chem. 269, 26879-26884 (1994). Residue numbering for
20 FGF1 is according to Zhu et al., Science 251, 90-93 (1991). A checkmark indicates FGF residues that have been shown by mutagenesis to be important for receptor binding.

Figure 18 depicts the locations of the mutations in the human FGFR2 gene that lead to skeletal disorders are mapped onto a ribbon representation the FGF2-FGFR2 structure. Side chains of the residues are colored with respect to the type of substitution. In yellow are
25 mutations that substitute a cysteine with another amino acid or *vice versa*, resulting in the creation of unpaired cysteines. In red are mutations that are expected to destabilize the tertiary structure of D3 and thus disfavor the formation of the correct intra-domain disulfide bridge. In green are mutations that are predicted to affect ligand-binding affinity or specificity.

30 Figure 19 depicts the overall structure of SCF (constructed by Molscript and Raster3D (Kraulis, J. Appl. Crystallogr. 24, 946-950 (1991); Merrit et al., Methods Enzymol. 277, 505-524 (1991))) and its relation with other cytokines by showing a ribbon representation of the

SCF structure, in two views related by a rotation of approximately 90° . The termini and secondary structures are labeled; the strands are rendered as arrows, the helices as ribbons, and the loop regions as tubes. The two-fold axis is marked with a diamond.

Figure 20 depicts the sequence alignment based on secondary structures of SCF, M-CSF and IL-5. Secondary structure assignments for M-CSF and IL-5 are from PDB databank. beta-Strands are yellow and helices are marked bright green.

Figure 21 shows a stereo view of the dimeric interface of SCF constructed by Molscript and Raster3D (Kraulis, J. Appl. Crystallogr. 24, 946-950 (1991); Merrit et al., Methods Enzymol. 277, 505-524 (1991)). For clarity, only side-chains of residues at the core of the interface are shown. The coding of the secondary structures is the same as used in Fig. 19, the strands are rendered as arrows, the helices as ribbons, and the loop regions as tubes.

Figure 22 shows 2Fo-Fc electron density created by O (Jones et al., Acta Crystallogr. A 47, 110-119 (1991)), contoured at 1.2, for the hydrogen bond circle of Tyr26 and Asp25' at the dimeric interface.

Figure 23 depicts a model of covalent SCF dimer constructed by Molscript and Raster3D (Kraulis, J. Appl. Crystallogr. 24, 946-950 (1991); Merrit et al., Methods Enzymol. 277, 505-524 (1991)). The non-covalent (native) dimer is on the left and a model for the covalent SCF dimer is on the right. Each protomer is colored either orange or green. The disulfide bonds are shown in ball-and-stick with sulfur atoms colored in yellow.

Figure 24 depicts a potential binding site on SCF for *c-kit* and a model of SCF:SCFR complex created by GRASP (Nicolls et al., Proteins 11, 281-296 (1991)). The molecular surface of SCF and proposed *c-kit* binding regions, in two views related by a rotation of approximately 90° are shown. A hydrophobic crevice at both tails is colored yellow. Two basic patches are colored blue and the acidic patch is colored red.

Figure 25 shows sequence alignments of human, rat, mouse, dog and pig SCFs. Residues of the acidic patch are colored red and residues of the two basic patches are colored blue. Stars mark amino acid residues that are altered in rodents. The secondary structures are marked below the sequences with 'H' representing helices and 'E' representing beta strands

Figure 26 shows a proposed model of the SCF in complex with Ig-like domains 2-5 of the extracellular domain of *c-kit* (labeled D2 to D5) created by GRASP (Nicolls et al., Proteins 11, 281-296 (1991)). The SCF dimer is represented in a worm model and the *c-kit* model by a molecular surface.

Figure 27 depicts an electron density map of decasaccharides soaked into preformed crystals of an FGF2-FGFR1 complex showing the location of decasaccharides in the dimeric assemblage. Only the C α traces of D2s (cyan) and FGFs (orange) are shown. The decasaccharides are rendered in white sticks.

5 Figure 28 depicts a stereoview of an FoFc electron density map of an FGF2-FGFR1 complex shown in Figure 27 computed after simulated annealing with decasaccharide omitted from the atomic model. The map is computed at 3.0 Å resolution and contoured at 1.8 σ . Sugar rings are labeled A through H starting at the non-reducing end of the decasaccharide. Atom coloring is as follows: oxygens in red, sulfurs in yellow, nitrogens in
10 blue, and carbons in gray. This figure was constructed using Bobscript (Esnouf, J. Mol. Graph. Model 15, 132-134 (1997)). Figure 29 shows a stereoview of the detailed interactions between ordered decasaccharide rings (A-F), FGF and FGFR. Only the side chains of interacting residues are shown. The two D2s of the adjoining FGFRs are colored cyan and green respectively. Atom coloring is the same as in Figure 27. The carbon atoms in
15 FGFRs have the same coloring as the D2 to which they belong. Dotted lines represent hydrogen bonds.

Figure 30 shows a schematic diagram of interactions between decasaccharide (heparin), FGF and FGFR in the ternary complex. Only the relevant functional groups and backbone atoms of the interacting amino acids are shown. Dashed lines represent hydrogen
20 bonds. Hashed lines represent hydrophobic interactions. The sugar rings of heparin are labeled A through F starting at the non-reducing end. The backbone carbon atoms of heparin are numbered according to IUPAC nomenclature. The type and the number of interacting residues are colored based on the molecule to which they belong.

Figure 31 shows the results of a separation on a Superdex 200 column (Pharmacia) of
25 dimer formation for a set of mixtures of various ratios of homogeneously-sulfated hexasaccharide with purified 1:1 FGF1-FGFR2 complex. The following reaction mixture were used: A, control (no hexasaccharide added); B, hexasaccharide:FGF1-FGFR2 complex molar ratio of 0.5:1; C, , hexasaccharide:FGF1-FGFR2 complex molar ratio of 1:1; D, and hexasaccharide:FGF1-FGFR2 complex molar ratio of 2.85:1. The positions of monomers
30 and dimers are indicated by the letters "M" and "D" respectively. The letter "T" shows the position of the tight monomeric ternary 1:1:1 hexasaccharide: FGF1:FGFR2 complex. The letter "L" shows the position of free FGF1.

Figure 32 depicts a molecular surface representation of the "two end" model of the dimeric 2:2:2 FGF2-FGFR1-heparin ternary complex. The view is from the top (same view as Fig. 27) looking down into the heparin-binding canyon. The FGF2 surface is shown in orange and D2 in green. Only the first 6 sugar rings of the decasaccharides are rendered in ball-and-stick and the non-reducing and reducing ends are labeled.

Figure 33 shows a schematic illustration of a computer based system which can be used for displaying, studying, comparing, manipulating, interpreting and/or extrapolating data from the crystallographic analysis of molecular structures, such as the molecular structures of RPTKs, their ligands and related complexes.

BRIEF DESCRIPTION OF THE CRYSTALLOGRAPHIC ATOMIC STRUCTURAL COORDINATES

The crystallographic structural coordinates are located at the end of the section entitled "Examples" and before the claims. Table 1 provides the atomic structure coordinates of crystals of FGFR1-D2-D3 complexed with FGF2 of the invention as determined by X-ray crystallography. Table 2 provides the atomic structure coordinates of crystals of FGFR1-D2-D3 complexed with FGF1 of the invention as determined by X-ray crystallography. Table 4 provides the atomic structure coordinates of crystals of an SCF (1-141) non-covalent homodimer. Table 6 provides the atomic structure coordinates of crystals of a dimeric 2:2:2 FGF2:FGFR1:heparin ternary complex.

The columns (from left to right) in these tables are descriptions of the atoms by number and type, amino acid and number containing the atom, the x coordinate, y coordinate, z coordinate, bond connectivity, and temperature factor. All of these parameters are well defined in the art.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is directed to the determination and use of three dimensional structures of receptor protein tyrosine kinases. The three dimensional structures of receptor PTKs can facilitate the design and identification of modulators of receptor PTK function.

Protein tyrosine kinases (PTKs) comprise a large and diverse class of enzymes. Schlessinger and Ullrich, 1992, *Neuron* 9: 383-391. The PTK family is subdivided into members that are receptors and those that are non-receptors. The receptor PTK (RPTK)

family contains multiple subfamilies, one of which is the fibroblast growth factor receptor (FGFR) PTK which is a molecule implicated in regulating angiogenesis as well as cellular proliferation and differentiation. Givol and Yayon, 1992, *FASEB J.* 6 (15): 3362-3369.

5 FGFR1 through FGFR4, are known as "high affinity FGFRs," due to the ability to bind fibroblast growth factors with a high affinity. These high affinity FGFRs are characterized by an extracellular ligand-binding domain which comprises three immunoglobulin (IG)-like domains (known as D1 through D3), a single transmembrane helix, and a cytoplasmic domain containing tyrosine kinase activity. See Lee *et al.*, 1989, *Science* 245: 57-60; Jaye *et al.*, 1992, *J. Mol. Biol.* 227: 840-851; Johnson & Williams, 1993, 10 *Adv. Cancer. Res.* 60: 1-41. FGFRs can mediate cellular functions by their role in one or more cellular signal transduction processes. Cellular signal transduction processes comprise a cascade of multiple steps that convert an extracellular signal into an intracellular signal.

RPTK-mediated signal transduction is initiated by binding of a specific extracellular ligand to the extracellular domain, followed by receptor dimerization, and subsequent 15 autophosphorylation of the RPTK. Preferred ligands are epidermal growth factors, insulin, platelet-derived growth factors, vascular endothelial growth factors, fibroblast growth factors, hepatocyte growth factors, and neurotrophins. The FGF subfamily presently contains about 18 members, named FGF1 through FGF18, which bind to FGFRs, and to HSPGs. Those skilled in the art can identify presently unknown members of the FGF subfamily by sequence 20 homology to known subfamily members, and/or by the presence of a common protein fold. Each of the four high affinity FGFRs binds to a specific subset of FGFs. Ornitz *et al.*, 1996, *J. Biol. Chem.* 271: 15292-15297.

Once an RPTK is autophosphorylated, the phosphate groups are binding sites for intracellular signal transduction molecules which leads to the formation of protein complexes 25 at the cell membrane. These complexes facilitate an appropriate cellular effect (*e.g.*, cell division, metabolic effects to the extracellular microenvironment) in response to the ligand that began the cascade of events.

RPTKs function as binding sites for several intracellular proteins. Intracellular RPTK binding proteins are divided into two principal groups: (1) those which harbor a catalytic 30 domain; and (2) those which lack such a domain but serve as adapters and associate with catalytically active molecules. Songyang *et al.*, 1993, *Cell* 72:767-778. SH2 (*src* homology) domains are common adapters found in proteins which directly bind to the RPTK. SH2

domains are harbored by RPTK binding proteins of both groups mentioned above. Fantl *et al.*, 1992, *Cell* 69:413-423; Songyang *et al.*, 1994, *Mol. Cell. Biol.* 14:2777-2785); Songyang *et al.*, 1993, *Cell* 72:767-778; and Koch *et al.*, 1991, *Science* 252:668-678.

The specificity of the interactions between RPTKs and the SH2 domains of their binding proteins is determined by the amino acid residues immediately surrounding the phosphorylated tyrosine residue. Differences in the binding affinities of SH2 domains is correlated with the observed differences in substrate phosphorylation profiles of downstream molecules in the signal transduction process. Songyang *et al.*, 1993, *Cell* 72:767-778. These observations suggest that the function of each RPTK is determined not only by its pattern of expression and ligand availability but also by the array of downstream signal transduction pathways that are activated by a particular receptor. Thus, RPTKs provide a controlling regulatory role in signal transduction processes as a consequence of autophosphorylation.

RPTK-mediated signal transduction regulates cell proliferative, differentiation, and metabolic responses in cells. Therefore, inappropriate RPTK activity can result in a wide array of disorders and diseases. These disorders, which are described below, may be treated by the modulators of RPTK function designed or identified by the methods disclosed herein.

The present invention also relates to crystalline polypeptides corresponding to the extracellular domain of receptor tyrosine kinases. Such receptor protein tyrosine kinases are not covalently cross-linked, but are understood to undergo ligand-induced dimerization. Preferably, the crystalline extracellular domains are of sufficient quality to allow for the determination of a three-dimensional X-ray diffraction structure to a resolution of about 1.5 Å to about 3 Å, and most preferably about 2.8 Å. The invention also relates to methods for preparing and crystallizing the polypeptides. The polypeptides themselves, as well as information derived from their crystal structures can be used to analyze and modify tyrosine kinase activity as well as to identify compounds that interact with the extracellular domain.

The polypeptides of the invention are most preferably designed on the basis of the structure of a region in the extracellular domain of the RPTKs that contains the ligand binding domain. By way of illustration, FIG. 4 shows the amino acid sequence alignment of the ligand binding D2-D3 domains of human FGFR1, FGFR2, FGFR3, and FGFR4. The applicants have discovered and determined the boundaries of the extracellular domain required for crystallization of the resulting polypeptide. Surprisingly, these boundaries are

very similar to a naturally occurring variant of FGFR1 which retains approximately full ligand binding capacity and specificity. See Johnson *et al.*, *Mol. Cell. Biol.*, 1990 10: 4728-4736.

The resulting crystal structures consists of a unit cell comprising a dimer of two FGFR1 D2-D3 domains, each bound to an FGF molecule. The dimeric structure is stabilized by interactions between the two D2 domains, and by interactions between the FGF molecule in one member of the dimer and the D2 domain of the other member of the dimer. These contacts which stabilize the dimeric structure within the crystal are believed to be similar or identical to contacts which result in dimerization and activation of FGFR1 *in vivo*. Thus, the crystal structures of the invention provides for the first time a detailed view of the events leading to ligand-induced dimerization and activation of RPTKs.

The crystal structures also disclose a possible role for the acid box region of the extracellular domain of RPTKs in dimerization and activation. The acid box is a continuous stretch of acidic residues in the linker between D1 and D2. Models inferred from the crystal structures of the invention imply that the acid box may interact with the heparin binding region of D2, competing with heparin for binding. Surprisingly, these models imply that loss of the of the acid box / D2 interaction may permit heparin-induced dimerization and activation of FGFR1 in the absence of FGF.

The understanding of dimerization and activation at the atomic level can allow the design of modulators of RPTK function, for example molecules which contribute to or disrupt receptor/ligand binding or intradimer contacts. Such modulators may provide useful treatments for various RPTK diseases.

I. PTK Associated Diseases

PTK-associated diseases and disorders include, but are not limited to, blood vessel proliferative disorders, fibrotic disorders, and mesangial cell proliferative disorders. Blood vessel proliferative disorders refer to angiogenic and vasculogenic disorders generally resulting in abnormal proliferation of blood vessels. The formation and spreading of blood vessels play important roles in a variety of physiological processes such as embryonic development, corpus luteum formation, wound healing and organ regeneration. They also play a pivotal role in cancer development, for example in Kaposi's sarcoma. Other examples of blood vessel proliferation disorders include arthritis, where new capillary blood vessels invade the joint and destroy cartilage, ocular diseases, like diabetic retinopathy, where new

capillaries in the retina invade the vitreous, bleed and cause blindness, and von Hippel-Lindau disease (VHL), which is characterized by a predisposition for retinal angiomas, hemangioblastomas in the central nervous system, renal cell carcinomas, pheochromocytomas, and islet cell tumors of the pancreas. Conversely, disorders related to the shrinkage, contraction or closing of blood vessels are implicated in such diseases as restenosis.

Fibrotic disorders refer to the abnormal formation of extracellular matrix. Examples of fibrotic disorders include hepatic cirrhosis and mesangial cell proliferative disorders. Hepatic cirrhosis is characterized by the increase in extracellular matrix constituents resulting in the formation of a hepatic scar. Hepatic cirrhosis can cause diseases such as cirrhosis of the liver. An increased extracellular matrix resulting in a hepatic scar can also be caused by viral infection such as hepatitis.

Mesangial cell proliferative disorders refer to disorders brought about by abnormal proliferation of mesangial cells. Mesangial proliferative disorders include various human renal diseases, such as glomerulonephritis, diabetic nephropathy, malignant nephrosclerosis, thrombotic microangiopathy syndromes, transplant rejection, and glomerulopathies. The PDGF-R has been implicated in the maintenance of mesangial cell proliferation. Floege *et al.*, 1993, *Kidney International* 43:47S-54S.

RPTKs are directly associated with the cell proliferative disorders described above. For example, some members of the RPTK family have been associated with the development of cancer. Some of these receptors, like EGFR (Tuzi *et al.*, 1991, *Br. J. Cancer* 63:227-233; Torp *et al.*, 1992, *APMIS* 100:713-719) HER2/neu (Slamon *et al.*, 1989, *Science* 244:707-712) and PDGF-R (Kumabe *et al.*, 1992, *Oncogene* 7:627-633) are over-expressed in many tumors and/or persistently activated by autocrine loops. In fact, RPTK over-expression (Akbasak and Suner-Akbasak *et al.*, 1992, *J. Neurol. Sci.* 111:119-133; Dickson *et al.*, 1992, *Cancer Treatment Res.* 61:249-273; Korc *et al.*, 1992, *J. Clin. Invest.* 90:1352-1360) and autocrine loop stimulation (Lee and Donoghue, 1992, *J. Cell. Biol.* 118:1057-1070; Korc *et al.*, *supra*; Akbasak and Suner-Akbasak *et al.*, *supra*) account for the most common and severe cancers. For example, EGFR is associated with squamous cell carcinoma, astrocytoma, glioblastoma, head and neck cancer, lung cancer and bladder cancer. HER2 is associated with breast, ovarian, gastric, lung, pancreas and bladder cancer. PDGFR is associated with glioblastoma, lung, ovarian, and prostate cancer. The RPTK c-met is

generally associated with hepatocarcinogenesis and thus hepatocellular carcinoma. Additionally, c-met is linked to malignant tumor formation. More specifically, c-met has been associated with, among other cancers, colorectal, thyroid, pancreatic and gastric carcinoma, leukemia and lymphoma. Additionally, over-expression of the c-met gene has
5 been detected in patients with Hodgkin's disease, Burkitt's disease, and the lymphoma cell line.

The IGF-I RPTK, in addition to being implicated in nutritional support and in type-II diabetes, is also associated with several types of cancers. For example, IGF-I has been implicated as an autocrine growth stimulator for several tumor types, e.g. human breast
10 cancer carcinoma cells (Arteaga *et al.*, 1989, *J. Clin. Invest.* 84:1418-1423) and small lung tumor cells (Macauley *et al.*, 1990, *Cancer Res.* 50:2511-2517). In addition, IGF-I, integrally involved in the normal growth and differentiation of the nervous system, appears to be an autocrine stimulator of human gliomas. Sandberg-Nordqvist *et al.*, 1993, *Cancer Res.* 53:2475-2478. The importance of the IGF-IR and its modulators in cell proliferation is
15 further supported by the fact that many cell types in culture (fibroblasts, epithelial cells, smooth muscle cells, T-lymphocytes, myeloid cells, chondrocytes, osteoblasts, the stem cells of the bone marrow) are stimulated to grow by IGF-I. Goldring and Goldring, 1991, *Eukaryotic Gene Expression* 1:301-326. A series of recent publications suggest that IGF-IR plays a central role in the mechanisms of transformation and, as such, could be a preferred
20 target for therapeutic interventions for a broad spectrum of human malignancies. Baserga, 1995, *Cancer Res.* 55:249-252; Baserga, 1994, *Cell* 79:927-930; Coppola *et al.*, 1994, *Mol. Cell. Biol.* 14:4588-4595.

The association between abnormalities in RPTKs and disease are not restricted to cancer, however. For example, RPTKs are associated with metabolic diseases like psoriasis,
25 diabetes mellitus, wound healing, inflammation, and neurodegenerative diseases. EGFR is indicated in corneal and dermal wound healing. Defects in InsulinR and IGFIR are indicated in type-II diabetes mellitus. A more complete correlation between specific RPTKs and their therapeutic indications is set forth in Plowman *et al.*, 1994, *DN&P* 7:334-339.

The instant invention is directed in part towards designing modulators of RPTK
30 function that could indirectly kill tumors by cutting off their source of sustenance. Normal vasculogenesis and angiogenesis play important roles in a variety of physiological processes such as embryonic development, wound healing, organ regeneration and female reproductive

processes such as follicle development in the corpus luteum during ovulation and placental growth after pregnancy. Folkman and Shing, 1992, *J. Biological Chem.* 267:10931-34. However, many diseases are driven by persistent unregulated or inappropriate angiogenesis. For example, in arthritis, new capillary blood vessels invade the joint and destroy the cartilage. In diabetes, new capillaries in the retina invade the vitreous, bleed and cause blindness. Folkman, 1987, in: *Congress of Thrombosis and Haemostasis* (Verstraete, et. al, eds.), Leuven University Press, Leuven, pp.583-596. Ocular neovascularization is the most common cause of blindness and dominates approximately twenty (20) eye diseases.

Moreover, vasculogenesis and/or angiogenesis can be associated with the growth of malignant solid tumors and metastasis. A tumor must continuously stimulate the growth of new capillary blood vessels for the tumor itself to grow. Furthermore, the new blood vessels embedded in a tumor provide a gateway for tumor cells to enter the circulation and to metastasize to distant sites in the body. Folkman, 1990, *J. Natl. Cancer Inst.* 82:4-6; Klagsbrunn and Soker, 1993, *Current Biology* 3:699-702; Folkman, 1991, *J. Natl., Cancer Inst.* 82:4-6; Weidner et al., 1991, *New Engl. J. Med.* 324:1-5.

Several polypeptides with *in vitro* endothelial cell growth promoting activity have been identified. Examples include acidic and basic fibroblastic growth factor (α FGF, β FGF), vascular endothelial growth factor (VEGF) and placental growth factor. Unlike α FGF and β FGF, VEGF has recently been reported to be an endothelial cell specific mitogen. Ferrara and Henzel, 1989, *Biochem. Biophys. Res. Comm.* 161:851-858; Vaisman et al., 1990, *J. Biol. Chem.* 265:19461-19566.

Thus, identifying the specific receptors that bind FGF or VEGF is important for understanding endothelial cell proliferation regulation. Two structurally related receptor PTKs that bind VEGF with high affinity are identified: the flt-1 receptor (Shibuya et al., 1990, *Oncogene* 5:519-524; De Vries et al., 1992, *Science* 255:989-991) and the KDR/FLK-1 receptor (VEGFR2), discussed in the U.S. Patent Application No. 08/193,829. In addition, a receptor that binds FGF is identified. Jaye et al., 1992, *Biochem. Biophys. Acta* 1135:185-199). Consequently, these RPTKs most likely regulate endothelial cell proliferation.

FGFRs play important roles in angiogenesis, wound healing, embryonic development, and malignant transformation. Basilico and Moscatelli, 1992, *Adv. Cancer Res.* 59:115-165. Four high affinity mammalian FGFRs (FGFR1-4) have been described and additional diversity is generated by alternative RNA splicing within the extracellular domains. Jaye et

al., 1992, *Biochem. Biophys. Acta* 1135:185-199. Like other RPTKs, dimerization of FGF receptors is essential for their activation. Soluble or cell surface-bound heparin sulfate proteoglycans act in concert with FGF to induce dimerization (Schlessinger *et al.*, 1995, *Cell* 83:357-360), which leads to autophosphorylation of specific tyrosine residues in the cytoplasmic domain. Mohammadi *et al.*, 1996, *Mol. Cell Biol.* 16:977-989.

Mutations in three human FGF receptor genes, FGFR1, FGFR2, and FGFR3, have been implicated in a variety of human genetic skeletal disorders. Mutations in FGFR1 and FGFR2 result in the premature fusion of the flat bones of the skull and cause the craniosynostosis syndromes, such as Apert (FGFR2) (Wilkie *et al.*, 1994, *Nat. Genet.* 8:269-274), Pfeiffer (FGFR1 and FGFR2) (Muenke *et al.*, 1994, *Nat. Genet.* 8:269-274), Jackson-Weiss (FGFR2) (Jabs *et al.*, 1994, *Nat. Genet.* 8:275-279) and Crouzon (FGFR2) (Jabs *et al.*, 1994, *Nat. Genet.* 8:275-279) syndromes. In contrast, mutations in FGFR3 are implicated in long bone disorders and cause several clinically related forms of dwarfism including achondroplasia (Shiang *et al.*, 1994, *Cell* 78:335-342), hypochondroplasia (Bellus *et al.*, 1995, *Nat. Genet.* 10:357-359) and the neonatal lethal thanatophoric dysplasia (Tavormina *et al.*, 1995, *Nat. Genet.* 9:321-328). It has been shown that these mutations lead to constitutive activation of the tyrosine kinase activity of FGFR3 (Webster *et al.*, 1996, *EMBO J.* 15:520-527). Furthermore gene-targeting experiments in mice have revealed an essential role for FGFR3 in developmental bone formation (Deng *et al.*, 1996, *Cell* 84:911-921).

Another major role proposed for FGFs *in vivo* is the induction of angiogenesis (Folkman and Klagsbrun, 1987, *Science* 236:442). Therefore, inappropriate expression of FGFs or of their receptors or aberrant function of the tyrosine kinase activity could contribute to several human angiogenic pathologies such as diabetic retinopathy, rheumatoid arthritis, atherosclerosis and tumor neovascularization (Klagsbrun and Edelman, 1989, *Arteriosclerosis* 9:269). Moreover, FGFs are thought to be involved in malignant transformation. Indeed, the genes coding for the three FGF homologues int-2, FGF-5 and hst-1/K-fgf were originally isolated as oncogenes. Furthermore, the cDNA encoding FGFR1 and FGFR2 are amplified in a population of breast cancers (Adnane *et al.*, 1991, *Oncogene* 6:659-663). Over-expression of FGF receptors has been also detected in human pancreatic cancers, astrocytomas, salivary gland adenosarcomas, Kaposi's sarcomas, ovarian cancers and prostate cancers.

Evidence, such as the disclosure set forth in copending U.S. Application Serial No. 08/193,829, strongly suggests that VEGF is not only responsible for endothelial cell proliferation, but also is a prime regulator of normal and pathological angiogenesis. See generally, Klagsburn and Soker, 1993, *Current Biology* 3:699-702; Houck *et al.*, 1992, *J. Biol. Chem.* 267:26031-26037. Moreover, it has been shown that KDR/FLK-1 and flt-1 are abundantly expressed in the proliferating endothelial cells of a growing tumor, but not in the surrounding quiescent endothelial cells. Plate *et al.*, 1992, *Nature* 359:845-848; Shweiki *et al.*, 1992, *Nature* 359:843-845.

The invention is directed to designing and identifying modulators of RPTK functions that could modify the inappropriate activity of a RPTK involved with a clinical disorder. The rational design and identification of modulators of RPTK functions can be accomplished by utilizing the structural coordinates that define a RPTK three dimensional structure.

II. Modulators of PTK functions as Therapeutics for Disease

As a consequence of the disorders discussed above, scientists in the biomedical community are searching for modulators of RPTK functions that down-regulate signal transduction pathways associated with inappropriate RPTK activity.

Several small molecule modulators of RPTK functions have been identified which can traverse the cell membrane and do not hydrolyze in acidic environments. For example, bis monocyclic, bicyclic or heterocyclic aryl compounds (PCT WO 92/20642), vinylene-azaindole derivatives (PCT WO 94/14808) 1-cyclopropyl-4-pyridyl-quinolones (U.S. Patent No. 5,330,992), styryl compounds (U.S. Patent No. 5,217,999), styryl-substituted pyridyl compounds (U.S. Patent No. 5,302,606), certain quinazoline derivatives (EP Application No. 0 566 266 A1), seleoindoles and selenides (PCT WO 94/03427), tricyclic polyhydroxylic compounds (PCT WO 92/21660), and benzylphosphonic acid compounds (PCT WO 91/15495) are described as RPTK inhibitors.

Although some modulators of RPTK function are known, many of these are not specific for RPTK subfamilies and will therefore cause multiple side-effects as therapeutics. Certain compounds of the oxindolinone/ thiolindolinone family, however, are believed to be specific for the FGF receptor subfamily (U.S. Patent Application Serial No. 08/702,232, filed August 23, 1996, invented by Tang *et al.*, entitled "Indolinone Combinatorial Libraries and Related Products and Methods for the Treatment of Disease"). In addition, compounds of the

oxindolinone/thiolindolinone family are non-hydrolyzable in acidic conditions and can be highly bioavailable. These modulators of RPTK function, however, target the catalytic domain of the FGFR subfamily, and thus are not directed towards affecting receptor RPTK dimerization and activation via interactions in the extracellular domain.

5 III. Crystalline Tyrosine Kinases

Crystalline RPTKs of the invention include native crystals, derivative crystals and co-crystals. The native crystals of the invention generally comprise substantially pure polypeptides corresponding to the extracellular domain of an RPTK in crystalline form. In preferred embodiments, the crystals of the invention comprise polypeptides corresponding to
10 the extracellular domain of an RPTK in a complex with a ligand.

It is to be understood that the crystalline extracellular domains of the invention are not limited to naturally occurring or native extracellular domains. Indeed, the crystals of the invention include mutants of native extracellular domains. Mutants of native extracellular domains are obtained by replacing at least one amino acid residue in a native extracellular
15 domain with a different amino acid residue, or by adding or deleting amino acid residues within the native polypeptide or at the N- or C-terminus of the native polypeptide, and have substantially the same three-dimensional structure as the native extracellular domain from which the mutant is derived.

Similarly, in certain embodiments in which the extracellular domain is bound to a
20 ligand, the crystals of the invention include mutants of native extracellular domains and mutant ligands. As discussed above, mutant ligands can be obtained by replacing at least one amino acid residue in a polypeptide ligand with a different amino acid residue, or by adding or deleting amino acid residues within the native polypeptide or at the N- or C-terminus of the native polypeptide, and have substantially the same three-dimensional structure as the
25 native ligand from which the mutant is derived.

By having substantially the same three-dimensional structure is meant having a set of atomic structure coordinates that have a root-mean-square deviation (rmsd) of less than or equal to about 2Å when superimposed with the atomic structure coordinates of the native extracellular domain and/or ligand from which the mutant is derived when at least about 50%
30 to 100% of the C α atoms of the polypeptide are included in the superposition. For example,

Fig. 3 shows that 68 common C α atoms in the D2 and D3 regions of FGFR1 and telokin, a canonical IG-fold polypeptide, can be superimposed with a rms deviation of 0.8 Å.

Amino acid substitutions, deletions and additions which do not significantly interfere with the three-dimensional structure of a polypeptide will depend, in part, on the region of the polypeptide where the substitution, addition or deletion occurs. In highly variable regions of the molecule, non-conservative substitutions as well as conservative substitutions may be tolerated without significantly disrupting the three-dimensional structure of the molecule. In highly conserved regions, or regions containing significant secondary structure, conservative amino acid substitutions may be preferred.

Conservative amino acid substitutions are well-known in the art, and include substitutions made on the basis of similarity in polarity, charge, solubility, hydrophobicity, hydrophilicity and/or the amphipathic nature of the amino acid residues involved. For example, negatively charged amino acids include aspartic acid and glutamic acid; positively charged amino acids include lysine and arginine; amino acids with uncharged polar head groups having similar hydrophilicity values include the following: leucine, isoleucine, valine; glycine, alanine; asparagine, glutamine; serine, threonine; phenylalanine, tyrosine. Other conservative amino acid substitutions are well known in the art.

For RPTK extracellular domains obtained in whole or in part by chemical synthesis, the selection of amino acids available for substitution or addition is not limited to the genetically encoded amino acids. Indeed, the mutants described herein may contain non-genetically encoded amino acids. Conservative amino acid substitutions for many of the commonly known non-genetically encoded amino acids are well known in the art. Conservative substitutions for other amino acids can be determined based on their physical properties as compared to the properties of the genetically encoded amino acids.

In some instances, it may be particularly advantageous or convenient to substitute, delete and/or add amino acid residues to a native extracellular domain in order to provide convenient cloning sites in a DNA, such as a cDNA, encoding the polypeptide, to aid in purification of the polypeptide, and for crystallization of the polypeptide. Such substitutions, deletions and/or additions which do not substantially alter the three dimensional structure of the native tyrosine kinase domain will be apparent to those of ordinary skill in the art.

It should be noted that the mutants contemplated herein need not exhibit ligand binding activity. Indeed, amino acid substitutions, additions or deletions that interfere with

the ligand binding activity of the RPTK extracellular domain but which do not significantly alter the three-dimensional structure of the domain are specifically contemplated by the invention. Such crystalline polypeptides, or the atomic structure coordinates obtained therefrom, can be used to identify compounds or molecules that bind to the native domain.

5 These compounds or molecules may affect the activity of the native domain.

The derivative crystals of the invention generally comprise a crystalline RPTK extracellular domain polypeptide in covalent association with one or more heavy metal atoms. The polypeptide may correspond to a native or a mutated tyrosine kinase domain. Heavy metal atoms useful for providing derivative crystals include, by way of example and
10 not limitation, gold, mercury, etc.

The co-crystals of the invention generally comprise a crystalline RPTK extracellular domain polypeptide in association with one or more compounds or other molecules. The association may be covalent or non-covalent. Such molecules include, but are not limited to, ligands, ligand analogs, cofactors, substrates, substrate analogues, inhibitors, activators,
15 allosteric effectors, polypeptides, etc.

IV. Three Dimensional Structure Determination Using X-ray Crystallography

X-ray crystallography is a method of solving the three dimensional structures of molecules. The structure of a molecule is calculated from X-ray diffraction patterns using a crystal as a diffraction grating. Three dimensional structures of protein molecules arise from
20 crystals grown from a concentrated aqueous solution of that protein. The process of X-ray crystallography can include the following steps:

- (a) synthesizing and isolating a polypeptide;
- (b) growing a crystal from an appropriate solution comprising the polypeptide with or without a compound, modulator, ligand, or ligand analog; and
25
- (c) collecting X-ray diffraction patterns from the crystals, determining unit cell dimensions and symmetry, determining electron density, fitting the amino acid sequence of the polypeptide to the electron density, and refining the structure.

Production of Polypeptides

The native and mutated tyrosine kinase domain polypeptides described herein may be
30 chemically synthesized in whole or part using techniques that are well-known in the art (see,

e.g., Creighton, 1983). Alternatively, methods which are well known to those skilled in the art can be used to construct expression vectors containing the native or mutated tyrosine kinase domain polypeptide coding sequence and appropriate transcriptional/translational control signals. These methods include *in vitro* recombinant DNA techniques, synthetic techniques and *in vivo* recombination/genetic recombination. See, for example, the techniques described in Maniatis *et al.*, 1989 and Ausubel *et al.*, 1989.

A variety of host-expression vector systems may be utilized to express the RPTK extracellular domain coding sequence. These include but are not limited to microorganisms such as bacteria transformed with recombinant bacteriophage DNA, plasmid DNA or cosmid DNA expression vectors containing the RPTK extracellular domain coding sequence; yeast transformed with recombinant yeast expression vectors containing the RPTK extracellular domain coding sequence; insect cell systems infected with recombinant virus expression vectors (e.g., baculovirus) containing the RPTK extracellular domain coding sequence; plant cell systems infected with recombinant virus expression vectors (e.g., cauliflower mosaic virus, CaMV; tobacco mosaic virus, TMV) or transformed with recombinant plasmid expression vectors (e.g., Ti plasmid) containing the RPTK extracellular domain coding sequence; or animal cell systems. The expression elements of these systems vary in their strength and specificities.

Depending on the host/vector system utilized, any of a number of suitable transcription and translation elements, including constitutive and inducible promoters, may be used in the expression vector. For example, when cloning in bacterial systems, inducible promoters such as pL of bacteriophage λ , plac, ptrp, ptac (ptrp-lac hybrid promoter) and the like may be used; when cloning in insect cell systems, promoters such as the baculovirus polyhedrin promoter may be used; when cloning in plant cell systems, promoters derived from the genome of plant cells (e.g., heat shock promoters; the promoter for the small subunit of RUBISCO; the promoter for the chlorophyll a/b binding protein) or from plant viruses (e.g., the 35S RNA promoter of CaMV; the coat protein promoter of TMV) may be used; when cloning in mammalian cell systems, promoters derived from the genome of mammalian cells (e.g., metallothionein promoter) or from mammalian viruses (e.g., the adenovirus late promoter; the vaccinia virus 7.5K promoter) may be used; when generating cell lines that contain multiple copies of the receptor PTK extracellular domain DNA, SV40-, BPV- and EBV-based vectors may be used with an appropriate selectable marker.

Methods describing methods of DNA manipulation, vectors, various types of cells used, methods of incorporating the vectors into the cells, expression techniques, protein purification and isolation methods, and protein concentration methods are disclosed in detail with respect to the protein PYK-2 in U.S. Patents Nos. 5,837,524, 5,837,815, and PCT publication WO 96/18738, each of which is incorporated herein by reference in its entirety, including all claims, figures, and drawings. Those skilled in the art will appreciate that such descriptions are applicable to the present invention and can be easily adapted to it.

Crystal Growth

Crystals are grown from solutions containing the purified and concentrated polypeptide by a variety of techniques. These techniques include batch, liquid, bridge, dialysis, vapor diffusion, and hanging drop methods. McPherson, 1982, John Wiley, New York; McPherson, 1990, *Eur. J. Biochem.* 189:1-23; Webber, 1991, *Adv. Protein Chem.* 41:1-36, incorporated by reference herein in its entirety, including all figures, tables, and drawings.

Generally, the crystals of the invention are grown by adding precipitants to the concentrated solution of the polypeptide corresponding to the RPTK extracellular domain, with or without bound compound, modulator, ligand, or ligand analog. The precipitants are added at a concentration just below that necessary to precipitate the protein. Water is removed by controlled evaporation to produce precipitating conditions, which are maintained until crystal growth ceases.

For one of the exemplary crystals of the invention, it has been found that hanging drops containing about 2.0 μL of RPTK extracellular domain polypeptide with a bound ligand provide crystals suitable for high resolution X-ray structure determination. Preferably, crystals are grown by mixing equal volumes of protein solution (10 mg/mL in 25 mM Tris-HCl, pH 8.5, and 150 mM NaCl) and reservoir buffer (1.6 M $(\text{NH}_4)_2\text{SO}_4$, 20% v/v glycerol and 100 mM Tris-HCl, pH 8.5), and suspending a hanging drop of the resulting solution over 0.5 mL reservoir buffer at 20°C. In preferred embodiments, the protein solution comprises 10 mg/mL FGFR1 D2-D3 domain bound to an FGF2 molecule.

In another exemplary crystal of the invention, crystals are grown by mixing one volume of protein solution (1 mg/mL in 25 mM Tris-HCl, pH 8.5, and 150 mM NaCl) with four volumes of reservoir buffer (20% PEG 4000, 0.2 M Li_2SO_4 , and 0.1 M Tris-HCl, pH

8.5), and suspending a hanging drop of the resulting solution over 0.5 mL reservoir buffer at 20°C. In preferred embodiments, the protein solution comprises 1 mg/mL FGFR1 D2-D3 domain bound to an FGF1 molecule.

Those of ordinary skill in the art will recognize that the above-described
5 crystallization conditions can be varied. Such variations may be used alone or in
combination, and include polypeptide solutions containing polypeptide concentrations
between about 1 mg/mL and about 50 mg/mL, Tris-HCl concentrations between about 10
mM and about 200 mM, dithiothreitol concentrations between about 0 mM and about 20 mM,
10 pH ranges between about 5.5 and about 9.5; and reservoir solutions containing polyethylene
glycol concentrations between about 10% and about 50% (w/v), polyethylene glycol
molecular weights between about 1000 and about 20,000, (NH₄)₂SO₄ concentrations between
about 0.1 M and about 2.5 M, ethylene glycol or glycerol concentrations between about 0%
and about 20% (v/v), bis-Tris concentrations between about 10 mM and about 200 mM, pH
15 ranges between about 5.5 and about 9.5 and temperature ranges between about 0°C and about
25°C. Other buffer solutions may be used such as HEPES buffer, so long as the desired pH
range is maintained.

Derivative crystals of the invention can be obtained by soaking native crystals in
mother liquor containing salts of heavy metal atoms. It has been found that soaking a native
crystal in a solution containing about 0.1 mM to about 5 mM thimerosal, 4-
20 chloromeruribenzoic acid or KAu(CN)₂ for about 2 hr to about 72 hr provides derivative
crystals suitable for use as isomorphous replacements in determining the X-ray crystal
structure of the RPTK extracellular domain polypeptide.

Co-crystals of the invention can be obtained by soaking a native crystal in mother
liquor containing one or more compounds, ligands, or ligand analogs that bind the receptor
25 PTK extracellular domain, as described above, or can be obtained by co-crystallizing the
RPTK extracellular domain polypeptide in the presence of one or more binding compounds,
ligands, or ligand analogs.

Crystals comprising a polypeptide corresponding to a RPTK extracellular domain
complexed with a compound, ligand, or ligand analog can be grown by one of two methods.
30 In the first method, the compound, ligand, or ligand analog is added to the aqueous solution
containing the polypeptide corresponding to the RPTK extracellular domain before the
crystal is grown. In the second method, the compound, ligand, or ligand analog is soaked

into an already existing crystal of a polypeptide corresponding to a RPTK extracellular domain.

Crystalline FGFR Extracellular Domain/FGF complexes

The overall structures of the FGF1-FGFR1 and FGF2-FGFR2 complexes are similar
5 to the previously determined FGF2-FGFR1 structure (Fig. 5) (Plotnikov et al., 1999). The
FGFR ligand-binding domain consists of two Ig-like domains connected by a short linker.
The three-dimensional folds of D2 and D3 in both the FGF1-FGFR1 and FGF2-FGFR2
structures resemble that of the I-set prototype member telokin, in which a β sandwich is
formed by two layers of β sheets (Holden et al., 1992). A highly conserved disulfide bond is
10 buried in the hydrophobic core of D2 and D3 and bridges the two β sheets. In both structures,
the β C- β C' loop in D3 is disordered (Fig. 5).

The main difference between the structures of FGF1-FGFR1 and FGF2-FGFR2 is the
conformation of the segment connecting β C' and β E in D3 (Fig. 5). In the FGF2-FGFR2
structure, this segment is well ordered and interacts with FGF2, while in the FGF1-FGFR1
15 structure, this segment is disordered and is not included in the atomic model. In the
previously determined structure of FGF2-FGFR1, this segment is also well ordered and
interacts with the ligand (Plotnikov et al., 1999). At the C-terminal end of this segment in the
FGF2-FGFR1 structure, a short α helix (α D) has been assigned by PROCHECK (Laskowski
et al., 1993). In the present FGF2-FGFR2 structure, the polypeptide chain at the C-terminal
20 end adopts a very similar conformation, but is not assigned as a α helix.

It has previously been reported that both FGF1 and FGF2 adopt a β -trefoil fold which
consists of three copies of a four-stranded antiparallel β sheet (Fig. 5). Superposition of
receptor-bound FGF1 and FGF2 with the free FGF1 and FGF2 indicates that no significant
conformational changes occur in FGF1 and FGF2 upon receptor binding. In addition, as with
25 the crystal structures of free FGF1 and FGF2, ordered sulfate ions are found in the heparin-
binding sites of both FGF1 and FGF2. As in the determined crystal structure of FGF2-
FGFR1, the ligands in both the FGF1-FGFR1 and FGF2-FGFR2 structures interact with
residues of the receptors in D2, in D3 and in the linker that connects D2 and D3 (Fig. 6).

In one illustrative embodiment, the invention provides crystals of FGFR1 D2-D3
30 domain bound to an FGF2 molecule. The D2-D3 domain of this embodiment consists of

residues 142-365, and thus is missing the D1 domain, the acid box, and the linker between D3 and the transmembrane helix. Each D2-D3 domain is bound to a single FGF2 molecule. The crystals were obtained by the methods provided in the Examples. The FGFR1 D2-D3 / FGF2 crystals, which may be native crystals, derivative crystals or co-crystals, have tetragonal unit cells (i.e., unit cells wherein $a=b \neq c$) and space group symmetry $P4_12_12$. There are two FGFR1 D2-D3 / FGF2 complexes in the asymmetric unit, related by an approximate two-fold axis. The unit cell has dimensions of $a=b=98.5 \text{ \AA}$, $c=197.0 \text{ \AA}$ and $\beta=90^\circ$.

The FGF-D2 Interface

The interface between FGF and D2 in both complexes is mainly hydrophobic (Fig. 7 and 8). A solvent-exposed hydrophobic surface in FGF packs against a highly conserved hydrophobic surface at the bottom of D2 in FGFR. In the FGF2-FGFR2 structure, Tyr24, Leu140, and Met142 in FGF2 make hydrophobic contacts with Ala168 in FGFR2. Leu140, Tyr103 and the aliphatic portion of the Asn102 side chain in FGF2 make hydrophobic contacts with Pro170 in FGFR2. Phe31 of FGF2 is engaged in hydrophobic interactions with Leu166 of FGFR2. Leu166, Ala168 and Pro170 of FGFR2 are located in $\beta A'$ at the bottom of D2. Val249, located in the C-terminal end of βG in D2, is also in the FGF2-D2 interface and interacts with Leu140 and Met142 in FGF2. Several hydrogen bonds further fortify the mainly hydrophobic FGF2-D2 interface: the hydroxyl group of Tyr24 in FGF2 forms two hydrogen bonds with backbone atoms of Leu166 and Ala168 in FGFR2, and Tyr103 makes a hydrogen bond via a water molecule with the backbone of Ala168.

The observed interactions between FGF2 and FGFR2 in the FGF2-D2 interface are entirely consistent with mutagenesis studies on FGF2. It is demonstrated that individual replacements with alanine of Tyr24, Tyr103, Leu140 and Met140, all of which located in the FGF2-D2 interface (Fig. 7), results in a large decrease in FGFR1 binding affinity (Springer et al., 1994).

Within each D2-D3 / FGF2 complex of the illustrative embodiment, FGF2 interacts extensively with D2, D3, and the linker between the two domains. While a single hydrogen bond is noted between Tyr-24 in FGF2 and Leu-165 in FGFR1, the majority of interactions between D2 and FGF2 are hydrophobic. For example, hydrophobic contacts can be seen between Tyr- 24 and Met-142 of FGF2 and Ala 167 of D2, between Asn-102, Tyr-103, and Leu-140 of FGF2 and Pro-169 of D2, and between Leu-140 of FGF2 and Val-248 of FGFR1.

It is noteworthy that Ala 167, Pro-169, and Val-248 are conserved amongst FGFRs 1-4, and thus may represent a therapeutically important site in members of the FGFR subfamily.

Comparison of the FGF-D2 interfaces in the structures of FGF2-FGFR2 and FGF1-FGFR1 reveals a close similarity (Fig. 7 and 8). FGF2 and FGF1 differ in only two positions in the FGF-D2 interface: Met142 in FGF2 is replaced by a homologous hydrophobic residue Leu135 in FGF1, and Asn102 in FGF2 is substituted by His93 in FGF1. However, this latter substitution may not affect the binding of FGF1 to D2, since only the aliphatic portion of this residue interacts with FGFR and not the actual functional group.

The FGF-Linker Interface

10 The D2-D3 linker is highly conserved among FGFRs (Fig. 15). The hydrogen bonds between FGFs and the linker region play a critical role in binding of FGFs to FGFRs (Fig. 9 and 10). In the FGF2-FGFR2 structure, an invariant arginine located in the D2-D3 linker, Arg251 (in FGFR2), forms hydrogen bonds with the side chain of Asn104 and the backbone carbonyl oxygen of Asn102 (Fig. 9). Indeed, replacement of Asn104 in FGF2 with an alanine causes a 400-fold reduction in the binding affinity of FGF2 for FGFR1 (Zhu et al., 15 1997), revealing the importance of the interaction between Asn104 and FGFR.

A sequence alignment of the 19 available FGFs shows that the majority of FGFs have an asparagine in the position corresponding to Asn104 of FGF2 (Fig. 17). However, FGF8, FGF17 and FGF18 have a threonine residue at this position, whose side chain is shorter than asparagine. It is predicted that these FGFs will not form a direct hydrogen bond with the key linker arginine residue, and therefore will exhibit lower binding affinity towards FGFRs. Interestingly, FGF11, FGF12, FGF13, and FGF14 have a valine in place of Asn104 of FGF2 (Fig. 17). This substitution is expected to cause a strong decrease in FGFR binding.

The hydrogen bond between Arg251 and FGF2 takes place in a hydrophobic pocket 25 composed of the aliphatic side chains of highly conserved Val249 and Pro253 in FGFR2 and Leu98 and Pro141 in FGF2 (Fig. 9). The proximity to this hydrophobic environment will most likely stabilize this hydrogen bond. Moreover, the intramolecular hydrogen bonds between Arg251 and the invariant Asp283 in FGFR2 and Asn104 and Tyr106 in FGF2 serve to restrict the rotational freedom of the guanidium group of Arg251 and amide group of 30 Asn104 (Fig. 9). These interactions may increase the ligand-binding affinity by lowering the entropy of FGF-FGFR complex formation. Indeed, substitution of Tyr106 with a phenylalanine in FGF2 caused a 5-fold reduction in receptor binding (Zhu et al., 1995).

The FGF-linker interfaces in both FGF1-FGFR1 and FGF2-FGFR2 structures are highly conserved (Fig. 9 and 10). Moreover, the hydrophobic environment surrounding the critical hydrogen bond between FGFR-invariant linker arginine and FGF is nearly identical in both structures (Fig. 9 and 10). A sequence alignment of all known members of the FGF and FGFR families, reveals that residues in FGF and FGFR that constitute the FGF-D2 and FGF-linker interfaces are conserved among the 4 mammalian FGFRs (Fig. 15) and the 19 available FGFs (Fig. 17). Based on our structures and the sequence alignment, we propose that the FGF-D2 and FGF-linker interfaces described above represents a general conserved binding interface for all FGF-FGFR complexes.

Interactions between FGF2 and the linker between D2 and D3 in the illustrative embodiment include hydrogen bonds between Asn-102 and Asn-104 of FGF2 with Arg-250 of FGFR1, and a hydrophobic interaction between Leu-98 of FGF2 and Val-248 of FGFR1. Arg-250 is invariant in the FGFR subfamily, and thus may also represent a therapeutically important site.

The FGF-D3 Interface

While the FGF-D2 and the FGF-linker interfaces are conserved in FGF-FGFR complexes, a large part of the FGF-D3 interface is highly divergent, thus revealing the determinants of FGF-binding specificity. Figures 11-14 depict the interactions between FGF and the upper part of the D3 module. These interactions are mediated mainly by the $\beta\text{B}'$ - βC , $\beta\text{C}'$ - βE , and βF - βG loops of FGFRs. While residues in the $\beta\text{B}'$ - βC are highly conserved, the amino acid sequences of the $\beta\text{C}'$ - βE and βF - βG loops are significantly divergent among FGFRs (Fig. 16). Notably, alternative splicing occurs at the junction between $\beta\text{C}'$ and the $\beta\text{C}'$ - βE loop. Thus, the $\beta\text{C}'$ - βE and βF - βG loops are located in the second half of D3, which is subject to alternative splicing. Interactions of D3 with FGF involve several regions of FGF including the most divergent regions at the N-terminal segment outside of the β -trefoil core (prior to β1) and at the central segment consisting of β4 and the β4 - β5 loop. In contrast to the FGF-D2 interface which is dominated by hydrophobic interactions, most of the interactions in the FGF-D3 interface are mediated by hydrogen bonds. Moreover, many of the hydrogen bonds between FGF and D3 are made via water molecules. The polar nature of this FGF-D3 interface is consistent with the notion that this interface plays a critical role in FGF-FGFR binding specificity.

The conserved interactions between FGF2 and the $\beta\text{B}'\text{-}\beta\text{C}$ loop in D3 are mediated by four hydrogen bonds (one direct, three water-mediated) between an FGF-invariant glutamic acid residue, Glu96 in FGF2, and FGFR-invariant Gln285 in the $\beta\text{B}'\text{-}\beta\text{C}$ loop of D3 (Fig. 9 and 11). A water-mediated hydrogen bond between the side chain of Asn104 and the backbone carbonyl oxygen of Asp283 is also made in this interface (Fig. 9). The significance of Glu96 in FGF2 for FGFR binding was confirmed by a 1000-fold reduced receptor binding affinity of an FGF2 mutant containing an alanine in place of Glu96 (Zhu et al., 1995).

In contrast to the interface between FGF and the $\beta\text{B}'\text{-}\beta\text{C}$ loop, the interactions between FGF and the $\beta\text{C}'\text{-}\beta\text{E}$ loop in D3 are highly variable. A major difference between the crystal structures of FGF2-FGFR2 and FGF1-FGFR1 is the conformation of the $\beta\text{C}'\text{-}\beta\text{E}$ segment (Fig. 5). In the FGF2-FGFR2 structure, the $\beta\text{C}'\text{-}\beta\text{E}$ loop is well ordered and forms several specific contacts with residues in β4 of FGF2 (Fig. 13). This loop, on the other hand, is disordered in the crystal structure of FGF1-FGFR1 (Fig. 5). This difference reflects the lack of interaction between this loop and FGF1 and is not the result of crystal packing; this segment is ordered in all the four FGF2-FGFR2 complexes in the unit cell and disordered in both FGF1-FGFR1 complexes in the unit cell. As a result of this difference, the total accessible surface area buried in the FGF1-FGFR1 complex is 2200\AA^2 as compared to 2700\AA^2 in the FGF2-FGFR2 complex.

A total of five hydrogen bonds are formed at the interface between FGF2 and the $\beta\text{C}'\text{-}\beta\text{E}$ segment in the FGF2-FGFR2 structure (Fig. 13). Two hydrogen bonds are formed between the side chain of Gln56 of FGF2 and Asp321 of FGFR2, and two hydrogen bonds are made between the side chain of Glu58 of FGF2 and backbone atoms of Val317 and Asn318 in FGFR2. A fifth hydrogen bond is made between the backbone of Ala57 in FGF2 and the side chain of Asp321 via an ordered water molecule. Hydrophobic contacts between the side chain of Val317 in FGFR2 and the side chains of Tyr73, Val88, and Phe93 in FGF2 fortify this interface (Fig. 13). Mutagenesis experiments support the involvement of both Val88 and Phe93 in receptor binding. Replacement of Val88 and Phe93 with alanine in FGF2 cause a 10-fold and 80-fold reduction in receptor binding affinity, respectively (Zhu et al., 1998).

It is possible that the $\beta\text{C}'\text{-}\beta\text{E}$ loop exists in several different conformations and that interactions with different FGFs will modulate its secondary structure. In the crystal

structures of FGF2-FGFR2 and FGF2-FGFR1, the β C'- β E segment forms a small hydrophobic plug by means of interactions between three residues in this region (Ala315, Thr319 and Ile324) along with Ile288 located in β C in D3. It is conceivable that in the unoccupied receptors, the side chains of these residues are not sufficiently hydrophobic to form a stable core. In the occupied receptors, on the contrary, interactions with FGF2 may facilitate the positioning of these hydrophobic residues leading to formation of a more stable structure. In FGF1, the residue corresponding to Gln56 of FGF2 is a serine (Fig. 17), whose side chain is not long enough to form hydrogen bonds with Asp320 in FGFR1. A loss of these hydrogen bonds may increase the flexibility of the β C'- β E segment. This region is disordered in the FGF1-FGFR1 structure (Fig. 5 and Fig. 10).

On the basis of the structural analysis described above, it is proposed that FGF1 does not engage in any specific contacts with the β C'- β E loop, providing a potential explanation for why FGF1 binds indiscriminately to most FGFRs including the various alternatively-spliced forms, thus functioning as a universal ligand for all known FGFRs.

The crystal structure of an FGF1-FGFR2 complex was recently reported (Stauber et al., 2000). In contrast to the FGF1-FGFR1 structure described here, in the FGF1-FGFR2 structure the β C'- β E loop is ordered and makes several contacts with FGF1. Based on this structure changes in the primary sequence of the β C'- β E loop (as a result of alternative splicing) would clearly affect FGF1 binding. This structural feature, however, does not agree with the well-documented universal binding characteristics of FGF1.

The β C'- β E loop of all known FGFRs, irrespective of exon IIIb or IIIc, contains a highly conserved potential N-glycosylation site (Asn318 in FGFR2). The results described herein confirm that Asn318 is glycosylated in the extracellular domain of FGFR2 when expressed in insect cells. In the crystal structure of FGF1-FGFR2 (Stauber et al., 2000), the side chain of Asn318 makes two hydrogen bonds with FGF1. This peculiarity along with the specificity conundrum led us to consider whether the interactions between the β C'- β E loop and FGF1, observed in this structure, could be due to crystal packing and thus not reflect the situation *in vivo*.

Analysis of the relative disposition of D2 and D3 in all the FGF-FGFR structures revealed that the linkage between D2 and D3 is flexible, and the angle between the two domains is not dictated solely by the contacts between the two domains and the ligand. That

is, crystal packing also affects the relative disposition of the two domains. Although the FGF1-FGFR1 (reported in this manuscript) and FGF1-FGFR2 (Stauber et al., 2000) structures feature a common ligand, superimposition of the C α atoms of D2 between the two structures reveals a 7.8° difference in the relative orientation of D3 and D2. As a consequence, the β C'- β E loop in the FGF1-FGFR2 structure is closer to the ligand, and it is conceivable that the interactions between the β C'- β E loop and FGF1 in this structure are the result of crystal packing. In the FGF1-FGFR1 structure, the β C'- β E loop is disordered in both complexes in the asymmetric unit, providing two independent instances in which the β C'- β E loop does not engage FGF1.

10 Analysis of the lattice contacts in FGF1-FGFR2 structure provides a plausible mechanism by which crystal packing might have contributed to the observed interactions between the β C'- β E loop and FGF1. In this structure, the D2s of two symmetry mates insert into the space between the two D3s of the primary dimer, and appear to push the D3s closer to the FGF1 molecules.

15 Interactions between FGFR and FGF which Stabilize Dimerization

The D2-D3 / FGF2 dimer observed in the crystal structure of one illustrative embodiment is stabilized by interactions between each FGFR in the dimer, and by interactions between the FGF bound to one FGFR and the other receptor in the dimer. The ligand-receptor contacts which stabilize dimerization are largely weak van der Waals interactions between residues Asp-99, Ser-100, Asn-101, Pro-132, Gly-133, and Leu-138 of FGF2 and Pro-199, Asp-200, Ile-203, Gly-204, Gly-205, Ser-219, and Val-221 of FGFR1. Also noted are hydrogen bonds between Pro-132 of FGF2 and Gly-204 of FGFR1, and Lys-26 of FGF2 and Asp-218 of FGFR1.

25 In contrast, the receptor-receptor contacts which stabilize dimerization include a hydrophobic contact between Ala-171 residues of each receptor, hydrogen bonds between Lys 172, Thr-173, and Asp-218 of each receptor, and van der Waals interactions between Ala-171 and Lys-172 of each receptor. The present invention describes a receptor-receptor interface which was not postulated previously, involving residues conserved in the FGFR subfamily.

30 Disruption of the contacts which stabilize dimerization, for example by a molecule(s) which prevents the formation of one or more contacts, may provide a means of inhibiting

RPTK function. Alternatively, a molecule(s) which further stabilize dimer formation may provide a means of stimulating RPTK function.

Structural Basis for the Role of Alternative Splicing in FGF-Binding Specificity

Role of the β C'- β E Segment

5 A comparison of the amino acid sequences of FGFs and FGFRs in the interface between β C'- β E loop and FGFs shows significant diversity (Fig. 16 and Fig. 17). Moreover, alternative splicing occurs at the end of β C', resulting in major changes in the primary sequence and length of the β C'- β E loop. For example, the amino acid sequence of the β C'- β E loop in KGFR/FGFR2(IIIb) has seven substitutions and is two amino acids shorter than the
10 corresponding region in FGFR2(IIIc) (Fig. 16). Significantly, the three residues (Ala315, Thr319, and Ile324) in FGFR2(IIIc) that participate in formation of the β C'- β E hydrophobic plug are replaced by residues (Ser315, Ser319, and Ala322) in KGFR/FGFR2(IIIb) that are less likely to form a hydrophobic plug (Fig. 16). The result of these changes, the β C'- β E loop in KGFR will not be able to interact efficiently with FGF2. This proposal is supported by
15 binding experiments of FGF2 to a mutant FGFR2, in which its β C'- β E loop is replaced with the corresponding region from KGFR. The affinity of FGF2 towards this mutant is reduced by an order of magnitude (Gray et al., 1995). Conversely, insertion of the two residues and/or amino acid substitutions in the β C'- β E loop of KGFR did not affect FGF1 binding but abolished KGF/FGF7 binding (Wang et al., 1995b). Moreover, replacement of the
20 corresponding region in FGFR1(IIIc) conferred upon the mutant receptor the ability to bind KGF (Wang et al., 1999), while wild type FGFR1(IIIc) does not bind KGF/FGF7. These data indicate that there may be steric clashes between KGF/FGF7 and the β C'- β E segment in FGFR2(IIIc) resulting in the reduced affinity of KGF/FGF7 to FGFR2(IIIc). On the contrary, the β C'- β E segment of KGFR/FGFR2(IIIb) may interact more efficiently with KGF/FGF7.
25 The latter hypothesis is supported by the finding that a synthetic peptide derived from KGFR/FGFR2(IIIb) encompassing the β C'- β E segment competes specifically with the binding of KGF/FGF7 to KGFR/FGFR2(IIIb) (Bottaro et al., 1993). Final validation of these proposals, however, awaits a crystal structure of KGF/FGF7 in complex with KGFR/FGFR2(IIIb).

30 The structural findings described herein are also consistent with the identification of a central segment in KGF/FGF7 (residues 91-110) necessary for specific recognition and

activation of KGFR (Reich-Slotsky et al., 1995). This region mainly corresponds to β 4 and the β 4- β 5 loop in FGF2 (Fig. 6), which in the crystal structure of FGF2-FGFR2 make specific contacts with β C'- β E and β F- β G loop in D3, respectively (Figs. 13 and 11, respectively). Taken together, the structural data provide a molecular explanation as to how alternative splicing switches specificity in FGFR2/KGFR system.

Although alternative splicing plays a major role in specificity, similarly spliced variants of FGFRs also exhibit differential binding specificity (Ornitz et al., 1996). It was shown that FGF2 binds strongly to FGFR1(IIIc) and FGFR2(IIIc) but poorly to FGFR3(IIIc) and FGFR4 (Chellaiah et al., 1999; Vainikka et al., 1992). A survey of amino acid sequences of the β C'- β E loop of these receptors shows that the β C'- β E loop of FGFR4 as with KGFR/FGFR2(IIIb) is two amino acids shorter than the corresponding loop in FGFR1-3 (Fig. 16). Based on the results described herein, it is predicted that this loop in FGFR4 can not efficiently interact with FGF2. This will result in reduced FGF2 binding affinity to FGFR4 as compared to FGFR1. The β C'- β E loop of FGFR3 differs from that of FGFR1 by two amino acid substitutions (Fig. 16). Significantly, in FGFR3 the residue corresponding to Val317 of FGFR2 is an alanine, an amino acid with a smaller side chain than valine (Fig. 16). This will result in a weaker hydrophobic interaction with FGF2, affecting the affinity of FGF2 towards FGFR3. Indeed, when these residues in FGFR3 were replaced with the corresponding residues in FGFR1, the resultant FGFR3 mutant exhibited comparable binding affinity towards FGF2 (Chellaiah et al., 1999). The interactions between FGF and the β C'- β E loop in the crystal structure (Fig. 13) provide a molecular explanation for how specificity is regulated by the primary sequence composition of the β C'- β E loop.

Role of the β F- β G Loop

The β F- β G loop in D3 also plays an important role in the modulation of FGF binding specificity. In the FGF2-FGFR2 structure, Ser347 of FGFR2, located in β F- β G loop, makes two water mediated-hydrogen bonds with Glu96 and Leu98 of FGF2 (Fig. 11). A water-mediated hydrogen bond between Gly345 in FGFR2 and Gly61 in FGF2 and a direct hydrogen bond between the backbone of Asn346 in FGFR2 and the side chain of Arg60 in FGF2 provide additional contacts in this region (Fig. 11). Residues Arg60 and Gly61 are located in the β 4- β 5 loop in FGF2 (Fig. 17). Comparison of amino acid sequences shows that FGFs display considerable sequence variation at the position of Arg60 of FGF2.

Residue Gly61, on the other hand, is highly conserved in FGFs (Fig. 17). The β F- β G loop is invariant in the IIIb and IIIc forms of FGFRs (Fig. 16). However, Gly345 and Ser347 of FGFR2(IIIc) are replaced by Ser342 and Tyr345 in KGFR/FGFR2(IIIb). Replacement of Ser347 in FGFR2 by a tyrosine in KGFR/FGFR2(IIIb) may result in steric clashes with FGF2 leading to reduced binding affinity of FGF2 to KGFR/FGFR2(IIIb). This proposal is consistent with ligand binding properties of a double mutant KGFR, in which Tyr345 and Gln348 in KGFR were replaced by serine and isoleucine as in FGFR2. This mutant receptor acquired significant binding affinity towards FGF2 as compared to the parent molecule (Gray et al., 1995). Interestingly, mutation of an invariant asparagine located in the β F- β G (Asn344 in KGFR) to an alanine abolished binding ability of KGFR/FGFR2(IIIb) towards all FGFs tested (Gray et al., 1996). These results are expected based on our FGF-FGFR structures: in FGF2-FGFR2 structure the corresponding asparagine (Asn346) makes two intramolecular hydrogen bonds with backbone atoms of Ile348 and Gly349 in FGFR2. These hydrogen bonds play an important role in maintaining the local fold of the β F- β G loop. Substitution of Asn346 with an Ala residue will interfere with the folding of this loop resulting in possible steric clashes with all FGFs. Taken together, the structural data provide a plausible molecular explanation for how alternative splicing in D3 regulates FGF binding specificity towards different receptor isoforms.

The Role of the N-Terminal Segment of FGF

In the crystal structures of free FGF1 and FGF2, residues upstream of β 1 are found to be disordered (Eriksson et al., 1991; Blaber et al., 1996; Zhu et al., 1991). However, in the crystal structures of the receptor-bound FGF1 and FGF2 these residues are ordered and in proximity to D3 of FGFRs (Fig. 12 and 14). In the FGF2-FGFR2 structure, the side chain of Phe17 is located in a shallow hydrophobic pocket in D3 that is formed by Pro286, Ile288 and Val280 (Fig. 12). Moreover, Phe17 forms several hydrogen bonds via backbone atoms with Ser282 and Gln285 in D3. Lys18 in FGF2 also makes several hydrogen bonds with the side chains of Lys279 and Glu325 and with the backbone of Val280 in D3 (Fig. 12). In agreement with these structural observations, it has been shown that a synthetic peptide consisting of residues 13-18 of FGF2 (prior to β 1) competes with the binding of FGF2 to FGFR (Yayon et al., 1993). The amino acids ⁷NYKKPKL¹³ located at the junction between the N-terminal segment and β 1 in FGF1 have been proposed to signal the nuclear

accumulation of FGF1 that occurs during sustained exposure of cells to FGF1 (Imamura et al., 1990). In the FGF1-FGFR1 structure, Tyr8 located in this amino acid stretch inserts into a shallow hydrophobic pocket formed by the side chains of Val279, Pro285 and Ile287. The structural data described herein provide a direct role for this region in receptor binding.

5 Deletion mutagenesis experiments support our structural finding. FGF1 molecules lacking this amino acid stretch have 250-fold reduced ability to bind FGFR (Imamura et al., 1990). A structure-based sequence alignment of FGFs reveals significant sequence diversity in the segment upstream of β 1 in FGFs, suggesting that this region may also play a role in determining FGF binding specificity (Fig. 17).

10 In view of the interactions between residues prior to β 1 of FGFs and residues in D3 of FGFRs, it is possible that additional N-terminal residues that are not included in the currently analyzed FGF1 or FGF2 may also play a role in the determining specificity. To test this hypothesis, the crystal structure of full length FGF2 in complex with FGFR2 was determined (data not shown). In this crystal structure, however, all the residues N-terminal to Phe17 are
15 disordered, suggesting that this region does not play a major role in FGFR binding. The significance of the N-terminal residues of FGF2 remains unclear.

FGFR Mutations Responsible for Human Skeletal Disorders

Mutations in the extracellular domains of FGFR1 and FGFR2 have been identified in patients with birth defects involving craniosynostosis (premature fusion of the cranial
20 sutures) such as Pfeifer, Crouzon, Jackson-Weiss, and Apert syndromes (reviewed by Naski and Ornitz, 1998; Burke et al., 1998). These mutations cluster in three regions: in the D2-D3 linker, in D3 and in the linker connecting D3 to the transmembrane helix. These mutations can be classified into two groups: (1) Most of these mutations are substitutions of a cysteine with another amino acid or *vice versa*, resulting in the creation of unpaired cysteines. This
25 leads to ligand-independent dimerization and activation via formation of an intermolecular disulfide bond between receptor molecules. (2) There are mutations that do not involve cysteine substitutions. Nevertheless, it is thought that these mutations must also result in constitutive activation (ligand-independent) of the affected receptors because they cause similar disease phenotypes as those mutations that create free cysteines. The precise
30 molecular mechanisms by which these mutations lead to receptor activation are less clear.

To understand the molecular bases for the effects of these mutations on FGFR function, we have mapped these mutations onto the three-dimensional structure of FGF2-

FGFR2 (Fig. 18). Based on our structural data we predict that many mutations in D3, although not directly involving cysteines, could destabilize the tertiary structure of D3 and disfavor the formation of the intra-domain disulfide bridge, thus increasing the likelihood of disulfide bridging between receptor molecules (Fig. 18). Perhaps this notion is best exemplified by the substitution of Trp290 with glycine or arginine. Residue Trp290 is located in the core of D3, adjacent to the disulfide bridge, and replacement of this residue with either of the two amino acids will likely reduce the stability of D3 (Fig. 18).

Mutations of two highly conserved residues Ser252 and Pro253 in the D2-D3 linker of FGFR2 are responsible for all the known cases of Apert syndrome. Mutation of the equivalent proline in FGFR1 (Pro252) has been reported in some cases of Pfeifer syndrome. Based on our structural data we predict that these mutations introduce specific interactions between FGFR and FGF. Indeed, Anderson et al. (1998) have shown that, compared with wild type FGFR2, mutant FGFR2 molecules bearing the Apert mutations exhibit a selective increase in affinity towards FGF2, leading to enhanced signaling where availability of ligand is limiting (Anderson et al., 1998).

As described above, the amino acid stretch between $\beta C'$ and βE plays a critical role in determining specificity. Residue Asp321 makes three hydrogen bonds with FGF2 (Fig. 13). Replacement of Asp321 with alanine, which is detected in some cases of Pfeifer syndrome, will therefore reduce the affinity of FGF2 towards FGFR2. It is conceivable, that this amino acid substitution will increase the affinity of FGFR2 for other members of the FGF family. Substitution of Ala315, also located in the $\beta C'$ - βE loop, with a serine is also associated with Pfeifer syndrome. Residue Ala315 participates in the formation of the hydrophobic $\beta C'$ - βE plug. This substitution can destabilize the hydrophobic plug and may affect ligand binding specificity.

25 *Heparin-binding Canyon*

In the crystal structure of the illustrative embodiment, a highly positively charged "canyon" that continues onto the top side of both ligands is formed by the interaction of the two D2 regions in the dimer. The canyon receives its positive potential from lysines 160, 163, 172, 175, and 177 of FGFR1. This canyon may represent the site of heparin binding. FGF2 also contains a high affinity heparin binding site, consisting of Asn-27, Lys-125, Gln-134, and Arg-120, and heparin increases the apparent affinity of FGF2 for FGFR1. Thus, these

residues may represent a useful therapeutic target, for example using a molecule(s) which affects the affinity of a receptor PTK for its ligand.

It has been postulated that heparin traverses this canyon and bridges the two 1:1 FGF:FGFR complexes. A recently reported crystal structure of another dimeric assemblage of two FGF1:FGFR2 complexes lends additional support to this model (Stauber et al., Proc. Natl. Acad. Sci. USA 97, 49-54 (2000)).

Based on the dimeric structure, manual docking experiments have shown that a maximally active dodecasaccharide perfectly traverses the canyon and engages both the high- and low-affinity heparin binding sites of the ligands. In contrast, an octasaccharide placed centrally into the canyon can only interact with the low-affinity heparin binding sites of the ligands. A canyon-docked hexasaccharide is unable to interact with any heparin binding sites of the ligands, implying that oligosaccharides smaller than an octasaccharide do not possess biological activity. There has been some controversy, however, in determining the minimal length of heparin necessary for FGF signaling. It has been proposed that the shortest biologically active heparin oligosaccharide is an octasaccharide and that an increase in heparin length parallels an increase in biological activity up to a dodecasaccharide. However, other studies report that hexasaccharides are biologically active and that even disaccharides possess biological activity.

The inability of this model to fully reconcile all of the previous literature led us to further characterize the role of heparin in FGF signaling. The determination of the crystal structure of a ternary FGF2-FGFR1-heparin complex is described herein. Interactions between heparin, FGF and FGFR provide a molecular basis for the dual role of heparin in augmenting 1:1 FGF:FGFR affinity and promoting dimerization of two FGF-FGFR complexes. Moreover, the unexpected 2:2:2 stoichiometry of FGF:FGFR:heparin observed in the structure led us to propose a new model that also accounts for FGF-dependent FGFR activation by short heparin analogs.

While the heparin binding residues in D2 of FGFRs are highly conserved, the heparin binding residues of the FGF family are known to display considerable diversity (Faham et al., Curr. Opin. Struct. Biol. 8, 578-586 (1998); Venkataraman et al., Proc. Natl. Acad. Sci. USA 96, 3658-3663 (1999)). Moreover, the β 1- β 2 heparin binding loop is of variable length in different FGFs. As a result of this heterogeneity, it is likely that different FGFs require heparan sulfates of distinct sulfation and/or length to exert their optimal biological activity.

In fact, it has been demonstrated that FGF2 requires 2-O-sulfate for heparin binding but not 6-O-sulfate. In contrast, FGF1 requires both sulfate groups to bind to heparin (Ishihara, 1994). Pericellular HSPGs from different cells exhibit significant heterogeneity in sulfation patterns, carbohydrate content and length. These variations could have a profound effect on FGF-FGFR interactions. Moreover, remodeling of the extracellular matrix during development may be a means to regulate the biological activities of FGFs.

The heparin binding mode in the present structure disputes the previous findings regarding the minimal length requirement for heparin to promote FGF-FGFR dimerization as well as the stoichiometry of FGF:FGFR:heparin interactions. The tripartite interactions between FGF, FGFR and heparin observed in the crystal structure suggest that heparin hexasaccharides are sufficient to promote receptor dimerization. Therefore, we decided to test the ability of a hexasaccharide to promote dimerization of FGF-FGFR complexes in vitro. Homogeneously-sulfated hexasaccharide was mixed at various molar ratios with a purified 1:1 FGF1:FGFR2 complex and the reaction mixtures were analyzed by size exclusion chromatography to quantitate dimerization (Fig. 31). Addition of hexasaccharide at a molar ratio of 0.5:1 hexasaccharide:complex dimerized half of the FGF1-FGFR2 complexes (Fig. 31, Panel B). Hexasaccharide at a molar ratio of 1:1 hexasaccharide:complex led to the quantitative dimerization of all the FGF1-FGFR2 complexes (Fig. 31, Panel C). Excess hexasaccharide reduced dimerization and resulted in the appearance of a peak which elutes slightly earlier than the control (Fig. 31, Panel D). This peak corresponds to the ternary 1:1:1 hexasaccharide:FGF1:FGFR2 complex. It is noteworthy that in the absence of heparin, FGF-FGFR complexes tend to dissociate under size exclusion chromatography conditions, indicating that heparin increases the affinity of FGF for FGFR and stabilizes dimer formation. Hence, the biochemical experiments presented in Fig. 31 support the observed mode of heparin binding in the crystals.

Based upon the crystal structure and supporting biochemical experiments described herein, a new "two end" model by which heparin induces FGF-dependent FGFR dimerization (see Fig. 32) is proposed. According to this model, heparin interacts via its non-reducing ends with both FGF and FGFR and promotes the formation of a stable 1:1:1 FGF:FGFR:heparin ternary complex. A second 1:1:1 FGF:FGFR:heparin ternary complex is then recruited to the first complex via direct FGFR:FGFR contacts, secondary interactions between FGF in one ternary complex and FGFR in the other ternary complex, and indirect

heparin-mediated FGFR-FGFR contacts. In the absence of heparin the direct receptor-receptor contacts and secondary ligand-receptor interactions are not sufficient for appreciable dimerization. Clearly, heparin augments direct FGFR-FGFR and secondary FGF-FGFR interactions.

5 The proposed “two end” model presented in this report is consistent with the chemical architecture of heparan sulfate chains, which are linked by the reduced end (O1) to the protein core of HSPG. Furthermore, heparan sulfate can be roughly divided into low and high sulfate regions (Gambarini et al., Mol. Cell Biochem. 124, 121-129 (1993)). The low sulfate region is proximal to the protein core. The high sulfate region is located towards the
10 non-reducing end (O4) that corresponds to the non-reducing ends of the decasaccharides bound in the center of the canyon in our structure. Moreover, the chemical nature of the highly sulfated non-reducing ends resemble heparin and are made up of tri-sulfated disaccharide units (IdoA,2S-GlcNS,6S) considered to be the building block of HSPG
15 regions of heparan sulfate have been shown to be the major determinants of the potentiating effect of heparan sulfate on FGF1 mitogenic activity (Gambarini et al., Mol. Cell Biochem. 124, 121-129 (1993)).

A survey of the nature of the tripartite interactions between FGF, FGFR and heparin shows that about half of these interactions are mediated through carboxylate, linker and ring
20 oxygens of heparin. Therefore, the results presented here afford a structural basis for the reported ability of certain synthetic non-sulfated heparan-derived di- and tri-saccharides to promote FGF-dependent FGFR activation in vivo (Ornitz et al., 1995). Synthesis of heparin molecules with a homogeneous sulfation pattern is difficult. On the basis of the structure presented here, it is possible to design small molecule heparin analogs in which the sulfate
25 groups are replaced with similar functional groups. Thus, our structural studies establish a framework for the rational design of heparin mimetics capable of modulating FGF activity. Given the important roles FGF play in angiogenesis and their biological processes, synthetic heparin agonists and antagonists may have potential therapeutic value.

Crystalline FGFR Extracellular Domain/FGF1 complexes

30 In a second illustrative embodiment, the invention provides crystals of FGFR1 D2-D3 domain bound to an FGF1 molecule. The D2-D3 domain of this embodiment again consists

of residues 142-365, and each D2-D3 domain is bound to a single FGF1 molecule. The crystals were obtained by the methods provided in the Examples. The FGFR1 D2-D3 / FGF1 crystals, which may be native crystals, derivative crystals or co-crystals, have triclinic unit cells, and space group symmetry P1. There are two FGFR1 D2-D3 / FGF1 complexes in the asymmetric unit, related by an approximate two-fold axis. The unit cell has dimensions of about $a=62.55 \text{ \AA}$, $b=64.06 \text{ \AA}$, $c=64.14 \text{ \AA}$, $\alpha=93.40^\circ$, $\beta=111.17^\circ$, and $\gamma=97.18^\circ$.

Binding interactions between FGFR and FGF1

Within each D2-D3 / FGF1 complex of the illustrative embodiment, FGF1 interacts extensively with D2, D3, and the linker between the two domains. A single hydrogen bond is noted between Tyr-15 in FGF1 and Leu-165 in FGFR1, but the majority of interactions between D2 and FGF1 are hydrophobic. For example, hydrophobic contacts can be seen between Tyr-15 and Leu-133, and Leu-135 of FGF1 and Ala 167 of D2, between Tyr-94, Leu-133, and His-93 of FGF1 and Pro-169 of D2, and between Phe-22 of FGF1 and Val-248 of FGFR1. These contacts are similar to the contacts described herein for the D2-D3/FGF2 crystal.

Interactions between FGF1 and the linker between D2 and D3 in the illustrative embodiment include hydrogen bonds between His-93 and Asn-95 of FGF1 with Arg-250 of FGFR1. Again, these contacts are similar to the contacts described herein for the D2-D3/FGF2 crystal.

Additionally, several regions of FGF1 interact with D3, including Tyr-8, which inserts into a hydrophobic pocket in D3 formed by Val 279, Pro-285, and Ile-287. Additionally, Tyr-8 participates in a hydrogen bond with Gln-284 of FGFR1. In a region which is diverse amongst the members of the FGF family, residues 46, 48-51, and 54 of FGF1 form van der Waals contacts with Gln-284, Pro-285, His-286, Gly-344, and Asn-345 of FGFR1. Ala-57 of FGF2, and Glu-49 in FGF1 forms a hydrogen bond with His-286 of FGFR1. As was described herein for the D2-D3/FGF2 crystals, this latter region may be important in defining the binding specificity of FGFRs, and thus may be a therapeutically important site.

Determining Unit Cell Dimensions and the Three Dimensional Structure of a Polypeptide or Polypeptide Complex

Once the crystal is grown, it can be placed in a glass capillary tube and mounted onto a holding device connected to an X-ray generator and an X-ray detection device. Collection

of X-ray diffraction patterns are well documented by those in the art. Ducruix and Geige, 1992, IRL Press, Oxford, England, and references cited therein. A beam of X-rays enter the crystal and then diffract from the crystal. An X-ray detection device can be utilized to record the diffraction patterns emanating from the crystal. Although the X-ray detection device on
5 older models of these instruments is a piece of film, modern instruments digitally record X-ray diffraction scattering.

Methods for obtaining the three dimensional structure of the crystalline form of a peptide molecule or molecule complex are well known in the art. Ducruix and Geige, 1992, IRL Press, Oxford, England, and references cited therein. The following are steps in the
10 process of determining the three dimensional structure of a molecule or complex from X-ray diffraction data.

After the X-ray diffraction patterns are collected from the crystal, the unit cell dimensions and orientation in the crystal can be determined. They can be determined from the spacing between the diffraction emissions as well as the patterns made from these
15 emissions. The unit cell dimensions are characterized in three dimensions in units of Angstroms (one Å = 10^{-10} meters) and by angles at each vertices. The symmetry of the unit cell in the crystals is also characterized at this stage. The symmetry of the unit cell in the crystal simplifies the complexity of the collected data by identifying repeating patterns. Application of the symmetry and dimensions of the unit cell is described below.

20 Each diffraction pattern emission is characterized as a vector and the data collected at this stage of the method determines the amplitude of each vector. The phases of the vectors can be determined using multiple techniques. In one method, heavy atoms can be soaked into a crystal, a method called isomorphous replacement, and the phases of the vectors can be determined by using these heavy atoms as reference points in the X-ray analysis.
25 Otwinowski, 1991, Daresbury, United Kingdom, 80-86. The isomorphous replacement method usually requires more than one heavy atom derivative. In another method, the amplitudes and phases of vectors from a crystalline polypeptide with an already determined structure can be applied to the amplitudes of the vectors from a crystalline polypeptide of unknown structure and consequently determine the phases of these vectors. This second
30 method is known as molecular replacement and the protein structure which is used as a reference must have a closely related structure to the protein of interest. Naraza, 1994, *Proteins* 11:281-296. Thus, the vector information from a receptor PTK of known structure,

such as those reported herein, are useful for the molecular replacement analysis of another receptor PTK with unknown structure.

Once the phases of the vectors describing the unit cell of a crystal are determined, the vector amplitudes and phases, unit cell dimensions, and unit cell symmetry can be used as terms in a Fourier transform function. The Fourier transform function calculates the electron density in the unit cell from these measurements. The electron density that describes one of the molecules or one of the molecule complexes in the unit cell can be referred to as an electron density map. The amino acid structures of the sequence or the molecular structures of compounds complexed with the crystalline polypeptide may then be fit to the electron density using a variety of computer programs. This step of the process is sometimes referred to as model building and can be accomplished by using computer programs such as TOM/FRODO. Jones, 1985, *Methods in Enzymology* 115:157-171.

A theoretical electron density map can then be calculated from the amino acid structures fit to the experimentally determined electron density. The theoretical and experimental electron density maps can be compared to one another and the agreement between these two maps can be described by a parameter called an R-factor. A low value for an R-factor describes a high degree of overlapping electron density between a theoretical and experimental electron density map.

The R-factor is then minimized by using computer programs that refine the theoretical electron density map. A computer program such as X-PLOR can be used for model refinement by those skilled in the art. Brünger, 1992, *Nature* 355:472-475. Refinement may be achieved in an iterative process. A first step can entail altering the conformation of atoms defined in an electron density map. The conformations of the atoms can be altered by simulating a rise in temperature which will increase the vibrational frequency of the bonds and modify positions of atoms in the structure. At a particular point in the atomic perturbation process, a force field, which typically defines interactions between atoms in terms of allowed bond angles and bond lengths, Van der Waals interactions, hydrogen bonds, ionic interactions, and hydrophobic interactions, can be applied to the system of atoms. Favorable interactions may be described in terms of free energy and the atoms can be moved over many iterations until a free energy minimum is achieved. The refinement process can be iterated until the R-factor reaches a minimum value.

The three dimensional structure of the molecule or molecule complex is described by atoms that fit the theoretical electron density characterized by a minimum R-value. A file can then be created for the three dimensional structure that defines each atom by coordinates in three dimensions. Examples of such structural coordinate files are defined in Tables 1-4 and 5 6.

V. Stem Cell Factor

Stem cell factor ("SCF") is a growth factor implicated in the stimulation of the survival, proliferation, and differentiation of hematopoietic cells. SCF is also known as mast cell growth factor ("MCGF"), *steel (Sl)* factor ("SLF") or *kit* ligand ("KL"). SCF is believed to be critical for mast cell production and function and to play an important role in the development of melanocytes, germ cells, and intestinal pacemaker cells. SCF is believed to mediate its biological effects by binding to and activating a receptor protein tyrosine kinase designated *c-kit* (also referred to as SCF receptor ("SCFR")). Like other RPTK ligands, SCF 10 induces dimerization of *c-kit* followed by trans-autophosphorylation of the cytoplasmic protein tyrosine kinase domain leading to subsequent recruitment of signaling proteins, tyrosine phosphorylation of substrates and activation of multiple signaling pathways.

It is believed that stem cell factor ("SCF") can play an important role in hematopoiesis by stimulating the survival, proliferation and differentiation of mast cells, melanocytes and germ cells. SCF has been tested extensively in both animals and human because of its ability to promote hematopoietic recovery. It has been demonstrated that SCF treatments produce an increase in the number of peripheral blood neutrophils and hematopoietic progenitor cells and modest rises in the numbers of platelets and lymphocytes. SCF, alone or in combination with other cytokines, is used to reduce the hematological 20 damage of chemotherapy. In a separate clinical trial, SCF has also been proven to be effective in enhancing the ability of G-CSF to mobilize peripheral blood hematopoietic progenitor and stem cells. It is believed that these cells can be transplanted to reconstitute the 25

hematopoietic system in patients receiving bone marrow ablative therapy (Nicola et al., Protein Chem. 52, 1-65 (1998)).

SCF exist naturally as membrane anchored and soluble isoforms as a result of alternative RNA splicing and proteolytic processing. The soluble form of SCF has 165 amino acids, but its receptor binding core has been mapped to the first 141 residues (Langley et al., Arch. Biochem. Biophys. 311, 55-61 (1994)). SCF functions as a non-covalent homodimer, but under physiological conditions, the majority of SCF is reported to exist as a monomer. Dimerization of SCF is a dynamic process and it may play a regulatory role in the control of SCFR binding affinity and receptor activation.

10 Comparison of SCF with other Growth Factors

SCF belongs to the short-chain helical cytokine family (Bazan, 1991; Rozwarski et al., 1994), but its resemblance to the other cytokines is limited only to the overall fold. The primary structures exhibit very weak similarity and sequences can be aligned only by comparison of the secondary structures (Fig. 20). The structure of SCF is most similar to the structure of M-CSF (Pandit et al., Science 258, 1358-1362 (1992)). The core four helix bundles of the two proteins superimpose relatively well, with r.m.s. deviation of 1.98Å for the alpha-C atoms. However, upon superimposition of the helices, the two beta-strands deviate significantly. Two loops in SCF, residues 29 to 41 and residues 90 to 98, extrude more than those of M-CSF. At the dimer interface, the SCF loop from residue 61 to 72 also extrudes further away from the core and packs against the same loop from the second protomer. The x-ray crystallography work described herein suggests that there is more contact between the two protomers of SCF as compared to the contact between the two M-CSF protomers. Furthermore, M-CSF is a covalent homodimer linked by an intermolecular disulfide bond whereas SCF is a noncovalent homodimer. *Flt3* ligand is also a noncovalent homodimer, but it has an extra intramolecular disulfide bond as does M-CSF. Nevertheless, the structure of *flt3* ligand (Hannum et al., Nature 368, 643-648 (1994)) can be predicted with reasonable confidence based upon the crystal structures of SCF described herein together

with the previously described crystal structure of M-CSF (Pandit et al., Science 258, 1358-1362 (1992)).

In contrast to the disulfide linked PDGF and M-CSF homodimers, two other ligands of the same family of receptor tyrosine kinases, SCF functions as a non-covalent homodimer (Pandit et al., Science 258, 1358-1362 (1992)). It has been shown that the bivalency of SCF is the sole driving force responsible for dimerization of the extracellular ligand binding domain of *c-kit*. Hence analysis of the molecular interactions that control SCF-dimer formation are critical for understanding the mechanism of activation of *c-kit*.

It is known that dimerization of SCF is sensitive to pH and salt concentration changes. This property is likely due to the fact that the interface is formed in part by polar interactions via salt bridges at the periphery and by a water molecule-mediated hydrogen bonds among buried polar residues at the core of the interface. In an attempt to identify residues that play a role in SCF dimerization, a Phe63Cys mutant was generated and characterized for receptor binding activity (Hsu et al., J. Biol. Chem. 272, 6406-6415 (1997)). It was demonstrated that this mutation led to the formation of a covalent SCF dimer. However, the mutant SCF dimer was biologically inactive. The structure of the SCF interface described herein provides a plausible explanation for the lack of activity of this mutant. (see Fig. 21). In the structure, the shortest distance between the side chains of the two symmetry related Phe63 is about 8Å with the well-coordinated water molecule between them. It is impossible to create a disulfide bond between these two residues without disrupting the secondary and tertiary structures of the SCF dimer.

Domain Swapping and the Covalent Dimer of SCF

Recombinant SCF is expressed in *E. coli* as inclusion bodies in a denatured form and an active SCF protein is produced by a procedure involving refolding and oxidation. It has previously been reported that a small fraction of the refolded-oxidized protein is a covalent disulfide linked form of SCF. Interestingly, the covalent SCF dimer has been reported to bind to *c-kit* with slightly reduced affinity but was more potent in stimulation of

hematopoietic cells. Comparison of the secondary and tertiary structures by spectroscopic methods demonstrated that the covalent dimer is indistinguishable from the non-covalent dimer (Lu et al., *J. Biol. Chem.* 271, 11309-11316 (1996)). Surprisingly, the disulfide linkages of the covalent dimer were found to be identical to those in the non-covalent dimer except that the disulfide linkages in the variant protein were intermolecular. That is, Cys4 and Cys43 from one protomer form disulfide bonds with Cys89 and Cys138, respectively, of the second protomer. It was thus proposed that the covalent dimer could be formed by a three-dimensional domain swapping of helices alphaA and alphaD between the two monomers (Lu et al., *J. Biol. Chem.* 271, 11309-11316 (1996)). A close examination of the three-dimension structure of SCF reported herein shows that the C2 symmetry of the dimer may allow these helices to be swapped between the protomers while preserving the overall structure and identical surface at the tails of each protomer. Figure 23 shows a model generated by swapping helices alphaA and alphaD between the two protomers. Interestingly, the interactions at the core between the helices from the original dimer are preserved in the swapped model while the loops around the C2 axis and the orientation of the strands have to be adjusted. The disulfide pairs are identical in both forms except that they are intramolecular in the non-covalent dimer and intermolecular in the covalent dimer. It is worth noting that other four helix bundle cytokines such as L-5, IL-10 and IFN- are reported to form similar covalent interdigitated dimers naturally. In IL-5, helix alphaD and strand 2 of one protomer, together with helices alphaA, alphaB, alphaC and strand 1 from the other protomer, form one domain of the two-domain dimer. Indeed, because of the symmetric nature of the structure, it was possible to generate monomeric IL-5 mutants (Dickason et al., *Nature* 379, 652-655 (1996); Dickason et al., *J Mol Med* 74, 535-546 (1996); Edgerton et al., *J. Biol. Chem.* 272, 20611-20618 (1997)). By the same token, new type interdigitated covalent SCF dimers could be formed by introducing mutations in the loops between helix α A and strand 1 and between 2 and helix α D that favor the covalent dimer structure. These similarities in fold and dimeric symmetry among the helical cytokines probably reflect their common evolutionary origin.

Three-dimensional domain swapping is considered to be a general mechanism for the regulation of oligomer assembly, that is oligomers are formed from stable monomers by exchanging domains during evolution or under controlled laboratory conditions (Bennett et al., 1995). It has been suggested that under normal physiological conditions, the majority of soluble SCF exists as monomers. The balance between SCF monomers and dimers may be linked to the physiological requirement for activation of *c-kit* expressed on target cells *in vivo*. For therapeutic purpose, however, the more potent disulfide-linked dimer is generally preferred because it can be administered at low doses to avoid significant mast cell activation while stimulating hematopoietic recovery (Nocka et al., Blood 90, 3874-3883 (1997)).

10 Receptor Binding Region on SCF

SCF dimer are known to bind soluble or membrane forms of *c-kit* with high affinity and specificity. The binding of SCF to *c-kit* was analyzed by biochemical methods, by employing site-directed mutagenesis and by epitope mapping with site-specific anti-*c-kit* antibodies. It was reported that deletions of residues 1 to 3 from the N-terminus reduced the binding of SCF to *c-kit* by approximately 50%. Deletion of Cys4 inactivated SCF, whereas deletion of Cys138 and additional residues from the C-terminus only compromised SCF activity. Moreover, an SCF double mutant at Cys43Ala and Cys138Ala, which eliminate one pair of disulfide bonds, resulted in a partially active SCF as well. These experiments demonstrated that the N-terminus of SCF and the integrity of the Cys4-Cys89 disulfide bond are crucial for full CSF activity.

By analyzing the activities of a variety of SCF/M-CSF chimeric proteins, it has been shown that Arg121, Asp124, Lys127 and Asp128 are essential for SCF activity (Matous et al., Blood 88, 437-444 (1996)). Moreover, by using antibodies that neutralize different epitopes on SCF, it has been demonstrated that the regions flanked by amino acids 61 to 65 and 91 to 95 are also essential for SCF activity (Mendiaz et al., Eur. J. Biochem. 239, 842-849 (1996)). In general the regions mapped by biochemical methods are located in close proximity at the tail region of each SCF protomer. This region contains a deep crevice at the

end of alphaC formed by side chains of the hydrophobic residues Phe102, Leu98, Pro34, Tyr32, and by the Cys43-Cys138 disulfide bridge (see Fig. 24). Next to the crevice, there are three charged patches; a positively charged patch (Arg5, Arg7, and Lys127) followed by a negatively charged patch (Asp84, Asp85, Glu88, and Glu92) and then by an additional
5 positively charged patch (Lys91, Lys99, Lys100 and Lys103). Figure 24 shows the locations of the positively charged and negative charged patches as well as the hydrophobic crevice. This surface may function as a receptor binding site with the charged interactions providing anchor and specificity for ligand/receptor interactions and the hydrophobic interactions providing enthalpy to complex formation.

10 While human and rodent SCF are highly conserved, the charged patches that may function as part of receptor binding regions are quite divergent (see Fig. 25). Residues Arg5 and Arg7 in the first positively charged patch of the human SCF are replaced by glycine and proline residues in rodents, respectively. In the second positively charged patch, residues Lys100 and Lys91 are substituted by glutamate residues in both mouse and rat. These
15 changes could account for the difference in the binding affinity of human and murine SCF to the human *c-kit* that has been reported.

Natural and CHO-cell derived recombinant SCF are glycosylated on multiple asparagine, serine and threonine residues. The receptor binding properties of glycosylated SCF are consistent with the assignment of SCFR binding region shown in Fig. 24. There are
20 four putative asparagine glycosylation sites in the functional core of SCF: Asn65, Asn72, Asn93 and Asn120. Asn72 is not glycosylated probably because its side chain is buried in the dimer interface. However, the side chains of Asn120, Asn65, and Asn93 remain accessible to the solvent in the structure and are indeed glycosylated to different extent. Asn120 is always glycosylated but this does not affect the binding of SCF to *c-kit*. In
25 contrast, Asn65 and Asn93 are glycosylated in some, but not all, SCF molecules. Importantly, glycosylation of these asparagine residues has been reported to have an adverse effect on SCF binding to SCFR. The structure described herein provides possible

explanations for the adverse effect of glycosylation of these residues on the activity of SCF. The glycosylation of Asn93 may hinder SCF binding to *c-kit* as this residue is located very close to the acidic patch and to the hydrophobic crevice. On the other hand, Asn65 is located close to the dimer interface and glycosylation of this residue may interfere with SCF
5 dimerization.

Model for SCF:SCFR Complex

The extracellular ligand binding domains of several receptor tyrosine kinases contain multiple Ig-like domains. For instance, the extracellular domains of FGF receptors contain three Ig-like domains while the extracellular domain of PDGF-receptor family to which *c-kit*
10 belongs is composed of five Ig-like domains. Similarly, the extracellular domain of the VEGF-receptor has been reported to contain seven Ig-like domains. Although the ligands of these receptors are very diverse, the ligand binding regions in these three families of receptors have been mapped to Ig-like domains two and three (see, e.g., Plotnikov et al., *Cell*
15 *98*, 641-650 (1999)). The determination of the structures of the ligand binding domains of FGF and VEGF receptors demonstrated that FGF and VEGF bind differently to their respective receptors. In the FGF:FGFR complex the two receptors are packed side by side to one face and the ligands occupy the second face. On the other hand, the two VEGFR bind to the far ends of the VEGF-dimer creating an inverted "A" shaped complex with the ligand representing the cross bar in the "capital A". Since SCF functions as a dimer, SCF binding to
20 *c-kit* would be expected to resemble the structure which has been reported for the VEGF:VEGFR complex.

The x-ray crystal structure of the SCF dimer was used to build a model of SCF:*c-kit* complex formation and dimerization. Using the structure of FGFR as a template, a model for Ig-like domains 2-3 as well as 4-5 of *c-kit* was developed. Ig-like domains 2 and 3 were then
25 docked to the proposed SCF binding surface adopting the mode of FGFR binding to FGF2 (Plotnikov et al., *Cell* *98*, 641-650 (1999)). In addition, the orientation of Ig-like domains 4

and 5 was adjusted to allow for interactions between domain 4 in the complex as suggested by previous biochemical studies (Blechman et al., *Cell* **80**, 103-113 (1995)); see Fig. 26).

c-kit belongs to the same family of RTKs that also includes M-CSFR, PDGFR alpha, PDGFR alpha and *flt3*. Comparison of their primary structures shows that these RTKs are much more conserved than their ligands. Indeed, the structures of PDGF-A and PDGF-B are dramatically different from the structures of M-CSF and SCF and probably also *flt3* ligand. The similarity of the RTKs is also reflected in the chromosomal localizations of their human and murine genes (Kondo et al., *Gene* **208**, 297-305 (1998)). It is thought that this family of RTKs has evolved from a common ancestral gene that undergone several gene-duplication events. It is worth noting that RTKs that bind to and are activated by ligands with structures of four-bundle helix (i.e., M-CSF, SCF) are primarily involved in the control of hematopoiesis, whereas other members of this family of RTKs exhibit broader expression pattern and are involved in the regulation of growth and development of several tissues and organs.

Determination of the three dimensional structure of SCF would facilitate the determination of the structure of SCF in complex with the extracellular domain of *c-kit*, and enable the design and production of more potent forms of therapeutic SCF analogues. With the detailed structural information described herein, it may now be possible to design novel SCF variants with increased therapeutic potency.

VI. Uses of the Crystals and Atomic Structure Coordinates

The crystals of the invention, and particularly the atomic structure coordinates obtained therefrom, have a wide variety of uses. For example, the crystals described herein can be used as a starting material in any of the art-known methods of use for RPTKs. Such methods of use include, for example, identifying molecules that bind to the native or mutated extracellular domain of RPTKs. The crystals and structure coordinates are particularly useful for identifying compounds which are modulators of RPTK function as an approach towards developing new therapeutic agents (*see, e.g.,* Levitzki and Gazit, 1995, *Science* **267**:1782-8).

The structure coordinates described herein can also be used as phasing models for determining the crystal structures of additional native or mutated receptor PTK extracellular domains, as well as the structures of co-crystals of such domains complexed with molecules such as ligands, ligand analogs, inhibitors, activators, agonists, antagonists, polypeptides, and other molecules. The structure coordinates, as well as models of the three-dimensional structures obtained therefrom, can also be used to aid the elucidation of solution-based structures of native or mutated receptor PTK extracellular domains, such as those obtained via NMR. Thus, the crystals and atomic structure coordinates of the invention provide a convenient means for elucidating the structures and functions of receptor tyrosine kinases.

For purposes of clarity and discussion, the crystals of the invention will be described by reference to specific FGFR1 D2-D3 / FGF2 and FGFR1 D2-D3 / FGF1 exemplary crystals. Those skilled in the art will appreciate that the principles described herein are generally applicable to crystals of the extracellular domain of any receptor tyrosine kinase, including but not limited to receptor PTKs such as are PDGFR, EGFR, VEGFR, HGFR, neurotrophinR, HER2, HER3, HER4, InsulinR, IGFR, CSFIR, FLK, KDR, VEGFR2, CCK4, MET, TRKA, AXL, TIE, EPH, RYK, DDR, ROS, RET, LTK, ROR1, MUSK, members of the FGFR family, such as FGFR1, FGFR2, FGFR3, and FGFR4, and orphan receptor PTKs.

VII. Structure Determination for PTKs with Unknown Structure Using Structural Coordinates

Structural coordinates, such as those set forth in Tables 1-4 and 6 can be used to determine the three dimensional structures of RPTKs with unknown structure. The methods described below can apply structural coordinates of a polypeptide with known structure to another data set, such as an amino acid sequence, X-ray crystallographic diffraction data, or nuclear magnetic resonance (NMR) data. Preferred embodiments of the invention relate to determining the three dimensional structures of receptor PTKs and related polypeptides.

These include receptor PTKs such as are PDGFR, EGFR, VEGFR, HGFR, neurotrophinR, HER2, HER3, HER4, InsulinR, IGFR, CSFIR, FLK, KDR, VEGFR2, CCK4, MET, TRKA, AXL, TIE, EPH, RYK, DDR, ROS, RET, LTK, ROR1, MUSK, members of the FGFR family, such as FGFR1, FGFR2, FGFR3, and FGFR4, and orphan receptor PTKs.

Structures Using Amino Acid Homology

Homology modeling is a method of applying structural coordinates of a polypeptide of known structure to the amino acid sequence of a polypeptide of unknown structure. This method is accomplished using a computer representation of the three dimensional structure of a polypeptide or polypeptide complex, the computer representation of amino acid sequences of the polypeptides with known and unknown structures, and standard computer representations of the structures of amino acids. Homology modeling comprises the steps of (a) aligning the amino acid sequences of the polypeptides with and without known structure; (b) transferring the coordinates of the conserved amino acids in the known structure to the corresponding amino acids of the polypeptide of unknown structure; (c) constructing structures of the rest of the polypeptide; and (d) refining the subsequent three dimensional structure. One skilled in the art recognizes that conserved amino acids between two proteins can be determined from the sequence alignment step in step (a).

The above method is well known to those skilled in the art. Greer, 1985, *Science* 228, 1055. Blundell *et al.*, 1988, *Eur. J. Biochem.* 172, 513. A computer program currently utilized for homology modeling by those skilled in the art is the Homology module in the Insight II modeling package distributed by Molecular Simulations Inc.

Alignment of the amino acid sequence is accomplished by first placing the computer representation of the amino acid sequence of a polypeptide with known structure above the amino acid sequence of the polypeptide of unknown structure. Amino acids in the sequences are then compared and groups of amino acids that are homologous (*e.g.*, amino acid side chains that are similar in chemical nature - aliphatic, aromatic, polar, or charged) are grouped together. This method will detect conserved regions of the polypeptides and account for amino acid insertions or deletions.

Once the amino acid sequences of the polypeptides with known and unknown structures are aligned, the structures of the conserved amino acids in the computer representation of the polypeptide with known structure are transferred to the corresponding amino acids of the polypeptide whose structure is unknown. For example, a tyrosine in the amino acid sequence of known structure may be replaced by a phenylalanine, the corresponding homologous amino acid in the amino acid sequence of unknown structure.

The structures of amino acids located in non-conserved regions are to be assigned by either using standard peptide geometries or molecular simulation techniques, such as

molecular dynamics. The final step in the process is accomplished by refining the entire structure using molecular dynamics and/or energy minimization.

The homology modeling method is well known to those skilled in the art and has been practiced using different protein molecules. For example, the three dimensional structure of the polypeptide corresponding to the catalytic domain of a serine/threonine protein kinase, myosin light chain protein kinase, was homology modeled from the cAMP-dependent protein kinase catalytic subunit. Knighton *et al.*, 1992, *Science* 258:130-135.

Structures Using Molecular Replacement

Molecular replacement is a method of applying the X-ray diffraction data of a polypeptide of known structure to the X-ray diffraction data of a polypeptide of unknown sequence. This method can be utilized to define the phases describing the X-ray diffraction data of a polypeptide of unknown structure when only the amplitudes are known. X-PLOR is a commonly utilized computer software package used for molecular replacement. Brünger, 1992, *Nature* 355:472-475. AMORE is another program used for molecular replacement. Navaza, 1994, *Acta Crystallogr. A* 50:157-163. Preferably, the resulting structure does not exhibit a root-mean-square deviation of more than 3 Å.

A goal of molecular replacement is to align the positions of atoms in the unit cell by matching electron diffraction data from two crystals. A program such as X-PLOR can involve four steps. A first step can be to determine the number of molecules in the unit cell and define the angles between them. A second step can involve rotating the diffraction data to define the orientation of the molecules in the unit cell. A third step can be to translate the electron density in three dimensions to correctly position the molecules in the unit cell. Once the amplitudes and phases of the X-ray diffraction data are determined, an *R*-factor can be calculated by comparing electron diffraction maps calculated experimentally from the reference data set and calculated from the new data set. An *R*-factor between 30-50% indicates that the orientations of the atoms in the unit cell are reasonably determined by this method. A fourth step in the process can be to decrease the *R*-factor to roughly 20% by refining the new electron density map using iterative refinement techniques described herein and known to those or ordinary skill in the art.

Structures Using NMR Data

Structural coordinates of a polypeptide or polypeptide complex derived from X-ray crystallographic techniques can be applied towards the elucidation of three dimensional structures of polypeptides from nuclear magnetic resonance (NMR) data. This method is used by those skilled in the art. Wuthrich, 1986, John Wiley and Sons, New York:176-199; Pflugrath *et al.*, 1986, *J. Molecular Biology* 189:383-386; Kline *et al.*, 1986, *J. Molecular Biology* 189:377-382. While the secondary structure of a polypeptide is often readily determined by utilizing two-dimensional NMR data, the spatial connections between individual pieces of secondary structure are not as readily determinable. The coordinates defining a three-dimensional structure of a polypeptide derived from X-ray crystallographic techniques can guide the NMR spectroscopist to an understanding of these spatial interactions between secondary structural elements in a polypeptide of related structure.

The knowledge of spatial interactions between secondary structural elements can greatly simplify Nuclear Overhauser Effect (NOE) data from two-dimensional NMR experiments. Additionally, applying the crystallographic coordinates after the determination of secondary structure by NMR techniques only simplifies the assignment of NOEs relating to particular amino acids in the polypeptide sequence and does not greatly bias the NMR analysis of polypeptide structure. Conversely, using the crystallographic coordinates to simplify NOE data while determining secondary structure of the polypeptide would bias the NMR analysis of protein structure.

As the analysis of polypeptide structure by NMR methods is a relatively new technique, the use of structural coordinates defining an RPTK structure will most likely be utilized more frequently in the near future. As the method progresses, the three dimensional structure analysis of polypeptides of the same size as an RPTK extracellular domain will become more frequent.

VIII. Structure-Based Design of Modulators of PTK Function Utilizing Structural Coordinates

Structure-based modulator design and identification methods are powerful techniques that can involve searches of computer data bases containing a wide variety of potential modulators and chemical functional groups. The computerized design and identification of modulators is useful as the computer data bases contain more compounds than the chemical

libraries, often by an order of magnitude. For reviews of structure-based drug design and identification *see* Kuntz *et al.*, 1994, *Acc. Chem. Res.* 27:117; Guida, 1994, *Current Opinion in Struc. Biol.* 4: 777; Colman, 1994, *Current Opinion in Struc. Biol.* 4: 868.

The three dimensional structure of a polypeptide defined by structural coordinates can be utilized by these design methods. Preferably, the structural coordinates of Table 1 or Table 2 can be utilized by this method. In addition, the three dimensional structures of RPTKs determined by the homology, molecular replacement, and NMR techniques described herein can also be applied to modulator design and identification methods. Thus, the structures of receptor PTKs, such as are PDGFR, EGFR, VEGFR, HGFR, neurotrophinR, HER2, HER3, HER4, InsulinR, IGFR, CSFIR, FLK, KDR, VEGFR2, CCK4, MET, TRKA, AXL, TIE, EPH, RYK, DDR, ROS, RET, LTK, ROR1, MUSK, members of the FGFR family, such as FGFR1, FGFR2, FGFR3, and FGFR4, and orphan receptor PTKs, can be utilized by the methods described herein.

Design by Searching Molecular Data Bases

One method of rational modulator design searches for modulators by docking the computer representation of compounds from a data base of molecules. Publicly available data bases include:

- a) ACD from Molecular Designs Limited
- b) NCI from National Cancer Institute
- c) CCDC from Cambridge Crystallographic Data Center
- d) CAST from Chemical Abstract Service
- e) Derwent from Derwent Information Limited
- f) Maybridge from Maybridge Chemical Company LTD
- g) Aldrich from Aldrich Chemical Company
- h) Directory of Natural Products from Chapman & Hall

One such data base (ACD distributed by Molecular Designs Limited Information Systems) contains, for example, 200,000 compounds that are synthetically derived or are natural products. Methods available to those skilled in the art can convert a data set represented in two dimensions to one represented in three dimensions. These methods are enabled by such computer programs as CONCORD from Tripos Associates or DB-Converter from Molecular Simulations Limited.

Multiple methods of structure-based modulator design are known to those in the art. Kuntz *et al.*, 1982, *J. Mol. Biol.* 162: 269; Kuntz *et al.*, 1994, *Acc. Chem. Res.* 27: 117; Meng *et al.*, 1992, *J. Compt. Chem.* 13: 505; Bohm, 1994, *J. Comp. Aided Molec. Design* 8: 623.

5 A computer program widely utilized by those skilled in the art of rational modulator design is DOCK from the University of California in San Francisco. The general methods utilized by this computer program and programs like it are described in three applications below. More detailed information regarding some of these techniques can be found in the Molecular Simulations User Guide, 1995.

10 A typical computer program used for this purpose can comprise the following steps:

(a) remove an existing compound, ligand, or ligand analog from the protein;
(b) dock the structure of another compound, ligand, or ligand analog into the compound binding site using the computer program (such as DOCK) or by interactively moving the compound into the active-site;

15 (c) characterize the space between the compound and the binding site atoms;

(d) search libraries for molecular fragments which (i) can fit into the empty space between the compound and the active-site, and (ii) can be linked to the compound; and

(e) link the fragments found above to the compound and evaluate the new modified compound.

20 Part (c) refers to characterizing the geometry and the complementary interactions formed between the atoms of the RPTK and the compound, ligand, or ligand analog. A favorable geometric fit is attained when a significant surface area is shared between the compound and RPTK atoms without forming unfavorable steric interactions.

One skilled in the art would note that the method can be performed by skipping parts
25 (d) and (e) and screening a data base of many compounds.

Structure-based design and identification of modulators of RPTK function can be used in conjunction with assay screening. As large computer data base of compounds (around 10,000 compounds) can be searched in a matter of hours, the computer based method can narrow the compounds tested as potential modulators of RPTK function in cellular
30 assays.

The above descriptions of structure-based modulator design are not all encompassing and other methods are reported in the literature:

- (1) CAVEAT: Bartlett *et al.*, 1989, in "Chemical and Biological Problems in Molecular Recognition", Roberts, S.M.; Ley, S.V.; Campbell, M.M. eds.; Royal Society of Chemistry: Cambridge, ppl82-196.
- (2) FLOG: Miller *et al.*, 1994, *J. Comp. Aided Molec. Design* 8:153.
- 5 (3) PRO Modulator: Clark *et al.*, 1995, *J. Comp. Aided Molec. Design* 9:13.
- (4) MCSS: Miranker and Karplus, 1991, *Proteins: Structure, Function, and Genetics* 11:29.
- (5) AUTODOCK: Goodsell and Olson, 1990, *Proteins: Structure, Function, and Genetics* 8:195.
- 10 (6) GRID: Goodford, 1985, *J. Med. Chem.* 28:849.

Design by Modifying Compounds in Complex with RPTKs

Another way of identifying compounds, ligands, or ligand analogs as potential modulators is to modify an existing modulator in the polypeptide active-site. For example, the computer representation of modulators can be modified within the computer
15 representation of a RPTK ligand binding site. Detailed instructions for this technique can be found in the Molecular Simulations User Manual, 1995 in LUDI. The computer representation of the modulator is modified by changing, deleting, or adding one or chemical groups.

Upon each modification to the compound, ligand, or ligand analog, the atoms of the
20 modified compound, ligand, or ligand analog and the RPTK can be shifted in conformation, and the distance between the compound, ligand, or ligand analog and the RPTK atoms may be scored along with any complimentary interactions formed between the two molecules. Scoring can be complete when a favorable geometric fit and favorable complementary interactions are attained. Compounds that have favorable scores are potential modulators of
25 RPTK function.

Design by Modifying the Structure of Compounds that Bind Receptor PTKs

A third method of structure-based modulator design is to screen compounds designed by a modulator building or modulator searching computer program. Examples of these types of programs can be found in the Molecular Simulations Package, Catalyst. Descriptions for
30 using this program are documented in the Molecular Simulations User Guide (1995). Other

computer programs used in this application are ISIS/HOST, ISIS/BASE, ISIS/DRAW) from Molecular Designs Limited and UNITY from Tripos Associates.

5 These programs can be operated on the structure of a compound, ligand, or ligand analog that has been removed from the active-site of the three dimensional structure of a compound, ligand, or ligand analog -complexed RPTK complex. Operating the program on such a compound, ligand, or ligand analog is preferable since it is in a biologically active conformation.

10 A modulator construction computer program is a computer program that may be used to replace computer representations of chemical groups in a compound, ligand, or ligand analog complexed with a RPTK with groups from a computer data base. A modulator searching computer program is a computer program that may be used to search computer representations of compounds from a computer data base that have similar three dimensional structures and similar chemical groups as compounds bound to a receptor PTK.

A typical program can operate by using the following general steps:

- 15 (a) map the compounds, ligands, or ligand analogs by chemical features such as by hydrogen bond donors or acceptors, hydrophobic/lipophilic sites, positively ionizable sites, or negatively ionizable sites;
- (b) add geometric constraints to the mapped features; and
- (c) search data bases with the model generated in (b).

20 Those skilled in the art recognize that important chemical features include, but are not limited to, a hydrogen bond donor, a hydrogen bond acceptor, and/or two hydrophobic points of contact. Those skilled in the art also recognize that not all of the possible chemical features of the compound need be present in the model of (b). One can use any subset of the model to generate different models for data base searches.

25 IX. Organic Synthetic Techniques

The versatility of computer-based modulator design and identification lies in the diversity of structures screened by the computer programs. The computer programs can search data bases that contain 200,000 molecules and can modify modulators already complexed with a polypeptide, using a wide variety of chemical functional groups. A consequence of this chemical diversity is that a potential modulator of RPTK function may take a chemical form that is not predictable. A wide array of organic synthetic techniques exist in the art to meet the challenge of constructing these potential modulators of RPTK

function. Many of these organic synthetic methods are described in detail in standard reference sources utilized by those skilled in the art. One example of such a reference is March, 1994, Advanced Organic Chemistry; Reactions, Mechanisms, and Structure, New York, McGraw Hill. Thus, the techniques required to synthesize a potential modulator of RPTK function identified by computer-based methods are readily available to those skilled in the art of organic chemical synthesis.

X. Cellular Assays Measuring the Effect of a Receptor PTK Modulator in Signal Transduction Pathways

Cellular assays can be used to test the activity of a potential modulator of RPTK function as well as diagnose a disease associated with inappropriate RPTK activity. A potential modulator of RPTK function can be tested for activity *in vitro* by assays that measure the effect of a potential modulator on the autophosphorylation of a particular RPTK over-expressed in a cell line. Thus, a modulator that acts as a potent inhibitor of ligand binding to the extracellular domain corresponding to a RPTK would decrease the amount of autophosphorylation catalyzed by that RPTK. Potential modulators could also be tested for activity in cell growth assays *in vitro* as well as in animal model assays *in vivo*.

In vivo assays are also useful for testing the bioactivity of a potential modulator designed by the methods of the invention.

Materials, methods, and experimental data for these assays are fully described in U.S. Patent No. 5,792,783, and WO 96/40116 published on December 19, 1996, entitled "Indolinone Compounds for the Treatment of Disease," each of which is incorporated herein by reference in its entirety, including all drawings, figures, and tables.

XI. Administration of Modulators of Receptor PTK Function as Therapeutics for Disease

Methods of administering compounds to organisms as therapeutics for disease are fully described in U.S. Patent No. 5,792,783, and WO 96/40116 published on December 19, 1996, entitled "Indolinone Compounds for the Treatment of Disease," each of which is incorporated herein by reference in its entirety, including all drawings, figures, and tables.

XII. Computer-Based Systems for Determining, Designing, Modeling and/or Modifying Molecular Structures

An illustrative computer based system 10 is depicted in Figure 33 for displaying, studying, comparing, manipulating, interpreting and/or extrapolating data from the crystallographic analysis of molecular structures which include molecules, portion(s) of molecules and/or molecular interactions, such as the molecular structures of RPTKs, their ligands and related complexes depicted in Figs. 1, 2, 5, 19, 26 and 27. Exemplary molecules are proteins and/or complexes of proteins with ligands. Exemplary molecular portions are catalytic domains of proteins, ligand/receptor binding sites of proteins, signaling regions of proteins and transport regions of proteins. Exemplary molecular interactions include binding between an enzyme and its substrate, factor/co-factor relationships, antibody/antigen binding, and protein/receptor recognition and binding, such as that occurring in signal transduction. One or more of the above types of studies are useful for elucidating and understanding natural biochemical processes and to design and screen mimetics, agonists, inhibitors, and antagonists. Thus, this aspect of the invention, among other things, permits the skilled person to understand and practice molecular modeling processes and provides the skilled person with the necessary hardware and software to create and display images that represent the multi-dimensional structure of a molecule, molecular portion or molecular interaction, as desired. Thus, these undertakings are greatly facilitated by employing computer technology.

The system 10 includes data storage entity(ies) 20, such as a memory (e.g. as archival memory and/or video memory and computer-readable medias), that retrievably stores information representing molecule, molecule portions and/or molecular interactions. The memory typically has a first-type storage region or capability 22, having recorded thereon or contained therein structural data, like a set of spatial (atomic) coordinates, specifying a location in a three dimensional space, as disclosed herein or obtained in accordance with the teachings contained herein. The memory also can have a second-type storage region or capability 24, which contains information. This information typically represents a property, characteristic or attribute of one of a plurality of amino acids, or other chemical moiety, for example. A second-type storage region or capability can be associated with the first-type storage regions in the storage entity 20 to represent a geometric and/or spatial arrangement of at least one characteristic, property or attribute of a molecule, molecule portion or molecular interaction, preferably one that represents three dimensional space. The memory can take the

form of any type recognizable by the skilled person such as RAM and ROM, and other computer-readable mediums like magnetic media, optical media, magnetic-optical media, floppy disks, hard disks, mini-disks, servers, web-based systems, CD, DVD, tape, etc.

5 Memory 22 (a type of storage region or capability) can include or contain, for example, the coordinate data shown in Tables 1, 2, 3, 4 or 6, or other coordinates obtained in accordance with the present teachings, and memory 24 (a type of storage region or capability) can include or contain associated charge or electron density data, for example. Quite commonly, the system includes a plurality of the first-type and second-type storage regions. The storage entities 20, namely the first-type storage regions or capabilities 22, said second-type storage regions or capabilities 24, and the storage devices or capabilities 34 can be regions of, for example, a shared semiconductor memory, cache, RAM, ROM, regions of a shared optical disk, regions of a shared magnetic memory, and/or be server based to be accessible by intranet and the internet, including the world wide web. Thus, the systems of the present invention include unitary systems, network-based systems, satellite communications, and internet-based systems, which can be interactively connected regardless of geography.

15 The system 10 also includes a processor and/or is interactively associated with a processor, interactively coupled to the data storage entity(ies) to access the first-type storage regions 22 and optionally the second-type storage regions 24, to generate image signals for depicting a visual three dimensional image of at least one characteristic of the molecule, molecule portion or molecular interaction in the three dimensional space based on data from the storage entity 20. The processor can be a general or special purpose processor with a CPU, register, memory and the like. Software, and logic architecture and circuitry, can be employed as desired. According to one embodiment, processor 26 and storage entity 20, among other things, can be in the form of a UNIX or VAX computer, such those available from Silicon Graphics, Sun Microsystems, and IBM. However, the invention is not limited to use of these types of hardware and software systems.

A display 28 is commonly interactively coupled to the processor 26 via lines or a wireless connection 30 to receive the image signals in order to depict a visual three dimensional image of at least one characteristic of a molecule, molecule portion or molecular interaction in the three dimensional space based on the data. Suitable displays for use in the system include a computer screen 32 (e.g., CRT, LCD, active and passive matrix, etc.), printer, plotter or film.

In one embodiment of the invention, the image data includes data for depicting a visual three dimensional image of a structure of molecule, molecule portion or molecular interaction in three dimensional space, such as shown in Figs. 1, 2, 5, 19, 26 and 27. In another embodiment, the image data includes data for depicting a visual three dimensional image of a solid model representation of molecule, molecule portion or molecular interaction in three dimensional space. In still another embodiment, the image data includes data for depicting a visual three dimensional image of electrostatic surface potential of molecule, molecule portion or molecular interaction in three dimensional space. In yet another embodiment, the image data includes data for depicting a visual three dimensional stereo image of molecule, molecule portion or molecular interaction in three dimensional space.

The system 10 of the present invention may further comprise a storage device, structure, region or capability 34 that stores data representing a geometric and/or spatial arrangement of a characteristic of a composition in addition to the molecule, molecule portion or molecular interaction, such as shown in Figs. 9, 10, 22 and 24. Storage devices or capabilities 34 can include or contain, for example, the three-dimensional X-ray coordinate data for other chemical entities, including other proteins for comparison purposes. The storage devices and capabilities 34 can take the form of any type recognizable by the skilled person such as RAM and ROM, and other computer-readable mediums like magnetic media, optical media, magnetic-optical media, floppy disks, hard disks, mini-disks, servers, CD, DVD, tape, etc. The processor 26 can be interactively coupled to the storage device or capability 34 and the display 28, and generates additional image data for depicting the geometric arrangement of the characteristic of the composition relative to said visual three dimensional image of said at least one characteristic of the molecule, molecule portion or molecular interaction on the screen 32 based on instructions. In the Fig. 33 embodiment, the storage device or capability 34 is shown as part of the storage entity 20, although other arrangements are available to the skilled person.

The computer system includes or employs instructions, which can be software or hardware based. The instructions, such as those in logic circuits and software program(s), permit the computer system to, among other things, input, handle, analyze and output data. Exemplary programs are identified herein, although the skilled person is not limited to such programs in the practice of the invention.

Typically, the system 10 also includes an operator interface 36, such as a mouse, tracker ball, touch pad, projector (including multi-dimensional projector systems), touch screen, joy stick, pointer, keyboard, modem, card and/or voice recognition system, or docking system for receiving instructions from an operator, which is interactively connected with the display 28, processor 26 and storage entity(ies) 20. Other aspects of computers and computer components are well-known, and are readily obtained.

The computer systems according to the invention, including storage entity 20 (including 22, 24, 34, and others as well) can be programmed and contain data to undertake the analyses discussed in Sections VI-IX above, for example, including the use of x-ray crystallographic data in conjunction with other analytical techniques, such as NMR.

The invention also includes computer-readable media containing various data structures and the information disclosed herein. For example, magnetic media, optical media, magnetic-optical media, floppy disks, hard disks, mini-disks, servers, CD, DVD, tape, etc. containing the coordinate data set forth in the accompanying tables and figures, when computer analyzed according to set(s) of instructions and rules provided by hardware and/or software, are useful for ascertaining the three-dimensional structures of molecules, molecular portions and molecular interactions.

EXAMPLES

The examples below are non-limiting and are merely representative of various aspects and features of the present invention. The examples provide illustrative methods for obtaining crystalline forms of protein kinase polypeptides, methods for determining three dimensional structures of these protein kinase polypeptides, and methods for identifying modulators of protein kinases using the three dimensional structures of the protein kinases.

Atomic Structural Coordinates

Tables 1-3 provide the atomic structural coordinates for a number of ligand / FGFR complex dimers. Table 5 provides the atomic structural coordinates for a SCF dimer. Table

6 provides the atomic structural coordinates for a the ternary FGF2-FGFR1-heparin complex. The following abbreviations are used in the Tables:

"Atom Type" refers to the element whose coordinates are provided. The first letter in the column defines the element.

5 "A.A." refers to amino acid.

"X, Y and Z" provide the Cartesian coordinates of the element.

"B" is a thermal factor that measures movement of the atom around its atomic center.

"OCC" refers to occupancy, and represents the percentage of time the atom type occupies the particular coordinate. OCC values range from 0 to 1, with 1 being 100%.

10 "PRT1" or "PRT2" relate to occupancy, with PRT1 designating the coordinates of the atom when in the first conformation and PRT2 designating the coordinates of the atom when in the second or alternate conformation.

The structural coordinates for the dimers may be modified by mathematical manipulation. Such manipulations include, but are not limited to, crystallographic
15 permutations of the raw structure coordinates, fractionalization of the raw structure coordinates, integer additions or subtractions to sets of the raw structure coordinates, inversion of the raw structure coordinates and any combination of the above.

In addition, the structural coordinates can be slightly modified and still render nearly identical three dimensional structures. Therefore, a measure of a unique set of structural
20 coordinates is the root-mean-square deviation of the resulting structure. Structural coordinates that render three dimensional structures that deviate from one another by a root-mean-square deviation of less than 1.5 Å may be viewed as identical.

Example 1 - X-ray Crystallographic Structure Determination of FGFR1 D2-D3 / FGF2 Complexes

25 Polypeptide Synthesis and Isolation

A DNA fragment encoding residues 142-365 of human FGFR1 ("D2-D3") was subcloned into bacterial expression vector pET-23a using NcoI and HindIII restriction sites using techniques well known to the skilled artisan. Bacterial strain BL21(DE3) was used for expression of D2-D3, and was induced with IPTG for 5 hours. Following induction of
30 expression, the cells were collected by centrifugation, and lysed using a French press in a

buffer containing 25 mM potassium phosphate, 150 mM NaCl, 2 mM EDTA, and 10% glycerol.

A pellet containing D2-D3 was collected by centrifugation, and dissolved in 6M guanidium hydrochloride, 100 mM Tris-HCl, pH 8.0. D2-D3 was allowed to refold by dialyzing for 48 hours against a buffer containing 50 mM Tris-HCl, pH 8.0, 150 mM NaCl, 10% glycerol, and 1 mM L-cysteine. The refolded D2-D3 was chromatographed on a heparin sepharose column on which FGF2 had been previously immobilized. The resulting D2-D3 / FGF2 complex was eluted from the heparin sepharose column with a buffer containing 25 mM Tris-HCl, pH 7.5, and 1.5 M NaCl.

The D2-D3 / FGF2 complex was concentrated by ultrafiltration using a Centricon 10™ (Amicon) centrifugal concentrator, and further purified by size exclusion chromatography on a Superdex™ 200 column (Pharmacia) using a buffer containing 25 mM Tris-HCl, pH 7.5, and 1.5 M NaCl. Prior to crystallization, the D2-D3 / FGF2 complex was concentrated to 10 mg/mL in a buffer containing 25 mM Tris-HCl, pH 7.5, and 150 mM NaCl.

Crystal Growth

Crystals of purified D2-D3 / FGF2 complex were grown at 20°C by vapor diffusion in hanging drops by mixing equal volumes of protein solution (10 mg/mL D2-D3 / FGF2 complex in 25 mM Tris-HCl, pH 8.5, and 150 mM NaCl) and reservoir buffer (1.6 M (NH₄)₂SO₄, 20% v/v glycerol and 100 mM Tris-HCl, pH 8.5), and suspending a 2.0 µl hanging drop of the resulting solution over 0.5 mL reservoir buffer at 20°C.

Data Collection and Structure Determination

Diffraction data were collected from a crystalline specimen, which had been flash frozen in a dry nitrogen stream, at beamline X-4A at the National Synchrotron Light Source, Brookhaven National Laboratory. Synchrotron data were collected on a CCD detector. All data were processed using DENZO and SCALEPACK. Otwinowski, 1993, "Oscillation data reduction program," Proceedings of the CCP4 Study Weekend, Sawyer et al., eds. (Daresbury, United Kingdom: SERC Daresbury Laboratory), 56-62.

The structure of the D2-D3 / FGF2 complex was determined by molecular replacement using the program AmoRe (Navaza, 1994, *Acta Cryst. A* 50: 157-163) using the

structures of FGF2 (2FGF, Zhang *et al.*, 1991, *Proc. Natl. Acad. Sci.* 88: 3446-3450) and telokin (1TLK, Holden *et al.*, 1992, *J. Mol. Biol.* 227: 840-851) as search models. Homology models were constructed from the telokin structure for the FGFR1 D2 and D3 domains. A molecular replacement solution was determined for both FGF2 molecules and one copy of D2 and D3 in the dimer, and the second copy of D2 and D3 was determined by rigid body rotation and translation of the first copy of D2 and D3 onto the second FGF2 molecule. The placement of the second copy of D2 and D3 was confirmed by rigid body refinement techniques using CNS (Brünger *et al.*, 1998, *Acta Cryst. D* 54: 905-921).

Simulated annealing and positional B-factor refinement were performed using CNS, and bulk solvent and anisotropic B-factor corrections were applied. Additionally, tight noncrystallographic symmetry constraints were imposed during refinement of the backbone atoms of FGF2, D2, and D3. RMS deviation for C α atoms between the two copies of FGF2, D2, or D3 in the dimer was 0.04 Å.

Model building into the electron density maps was performed using the program O (Jones *et al.*, 1991, *Acta Cryst. A* 47: 110-119). The atomic model of the D2-D3 / FGF2 complex includes FGF2 residues 16-144 and FGFR1 residues 149-359, except in one of the FGFR1 receptors in the dimer, where residues 293-307 are disordered. The average B-factor for all atoms is 38.7 Å² for all atoms, 37.6/38.9 Å² for FGF2, and 38.3/39.1 Å² for FGFR1.

Atomic Structural Coordinates

Table 1 provides the atomic structural coordinates of the FGFR1(D2-D3)/FGF2 complex dimer complex dimer. The structure of the FGFR1(D2-D3)/FGF2 complex has been described in Plotnikov *et al.*, *Cell* 98, 641-650 (1999) and the coordinates for the FGFR1(D2-D3)/FGF2 complex are available on the internet through the Protein Data Bank (assigned Protein Data Bank ID code 1CVS), the disclosures of which are herein incorporated by reference.

Example 2 - X-ray Crystallographic Structure Determination of FGFR1 D2-D3 / FGF1

Complexes

Polypeptide Synthesis and Isolation

A DNA fragment encoding residues 142-365 of human FGFR1 ("D2-D3") was subcloned into bacterial expression vector pET-23a using NcoI and HindIII restriction sites

using techniques well known to the skilled artisan. Bacterial strain BL21(DE3) was used for expression of D2-D3, and was induced with IPTG for 5 hours. Following induction of expression, the cells were collected by centrifugation, and lysed using a French press in a buffer containing 25 mM potassium phosphate, 150 mM NaCl, 2 mM EDTA, and 10% glycerol.

A pellet containing D2-D3 was collected by centrifugation, and dissolved in 6M guanidium hydrochloride, 100 mM Tris-HCl, pH 8.0. D2-D3 was allowed to refold by dialyzing for 48 hours against a buffer containing 50 mM Tris-HCl, pH 8.0, 150 mM NaCl, 10% glycerol, and 1 mM L-cysteine. The refolded D2-D3 was chromatographed on a heparin sepharose column on which FGF1 had been previously immobilized. The resulting D2-D3 / FGF1 complex was eluted from the heparin sepharose column with a buffer containing 25 mM Tris-HCl, pH 7.5, and 1.5 M NaCl.

The D2-D3 / FGF1 complex was concentrated by ultrafiltration using a Centricon 10™ (Amicon) centrifugal concentrator, and further purified by size exclusion chromatography on a Superdex™ 200 column (Pharmacia) using a buffer containing 25 mM Tris-HCl, pH 7.5, and 1.5 M NaCl. Prior to crystallization, the D2-D3 / FGF1 complex was concentrated to 1 mg/mL in a buffer containing 25 mM Tris-HCl, pH 7.5, and 150 mM NaCl.

Crystal Growth

Crystals of purified D2-D3 / FGF1 complex were grown at 20°C by vapor diffusion in hanging drops by mixing one volume of protein solution (1 mg/mL in 25 mM Tris-HCl, pH 8.5, and 150 mM NaCl) with four volumes of reservoir buffer (20% PEG 4000, 0.2 M Li₂SO₄, and 0.1 M Tris-HCl, pH 8.5), and suspending a 2.0 µl hanging drop of the resulting solution over 0.5 mL reservoir buffer at 20°C.

Data Collection and Structure Determination

Diffraction data were collected from a crystalline specimen, which had been flash frozen in mother liquor containing 10% glycerol using a dry nitrogen stream, at beamline X-4A at the National Synchrotron Light Source, Brookhaven National Laboratory. Synchrotron data were collected on a CCD detector. All data were processed using DENZO and SCALEPACK. Otwinowski, 1993, "Oscillation data reduction program," Proceedings of the CCP4 Study Weekend, Sawyer et al., eds. (Daresbury, United Kingdom: SERC Daresbury Laboratory), 56-62.

The structure of the D2-D3 / FGF1 complex was determined by molecular replacement using the program AmoRe (Navaza, 1994, *Acta Cryst. A* 50: 157-163) using the structures of FGF1 (2AFG, Blaber *et al.*, 1996, *Biochemistry* 35: 2086-2094) and telokin (1TLK, Holden *et al.*, 1992, *J. Mol. Biol.* 227: 840-851) as search models. Homology models were constructed from the telokin structure for the FGFR1 D2 and D3 domains. A molecular replacement solution was determined for two copies each of FGF1, D2, and D3 in the dimer.

Simulated annealing and positional B-factor refinement were performed using CNS, and bulk solvent and anisotropic B-factor corrections were applied. Additionally, tight noncrystallographic symmetry constraints were imposed during refinement of the backbone atoms of FGF1, D2, and D3. RMS deviation for C α atoms between the two copies of FGF1, D2, or D3 in the dimer was 0.01 Å.

Model building into the electron density maps was performed using the program O (Jones *et al.*, 1991, *Acta Cryst. A* 47: 110-119). The atomic model of the D2-D3 / FGF1 complex includes FGF1 residues 8-138 and FGFR1 residues 147-359 except residues 294-305 and 315-323, which are disordered. The average B-factor for all atoms is 30.4 Å² for all atoms, 31.2/33.0 Å² for FGF1, and 29.1/28.7 Å² for FGFR1.

Atomic Structural Coordinates

Table 2 provides the atomic structural coordinates of the FGFR1(D2-D3)/FGF1 complex dimer. In the first FGFR1 molecule of the dimer the residue number is preceded by a 1, *i.e.*, residue number 464 of the first FGFR1 molecule of the dimer is denoted by "1464". The structure of the FGFR1(D2-D3)/FGF1 complex has been described in Plotnikov *et al.*, *Cell* 101, 413-424 (2000) and the coordinates for the FGFR1(D2-D3)/FGF1 complex are available on the internet through the Protein Data Bank (assigned Protein Data Bank ID code 1EVT), the disclosures of which are herein incorporated by reference.

Example 3 - Determination of the FGF2-FGFR2 Structure

Crystallization and Data Collection

DNA fragments encoding residues 147 to 366 of FGFR2 were amplified by polymerase chain reaction (PCR) and subcloned into the bacterial expression vector pET-28a using NcoI and HindIII cloning sites and transfected into the bacterial strain BL21(DE3). Cells were induced with IPTG for 5 hours, centrifuged and the bacterial pellet was lysed in 25mM K-Na phosphate buffer pH 7.5 containing 150mM NaCl, 2mM EDTA and 10%

glycerol using a French press. Following centrifugation, the pellet containing primarily FGFR2 was dissolved in 6M guanidium hydrochloride and 10mM DTT in 100mM Tris-HCl buffer (pH 8.0). The solubilized FGFR2 protein was refolded by dialysis against 25mM HEPES buffer pH 7.5 containing 150mM NaCl, 10% Glycerol, and 1mM L-Cysteine. The refolded FGFR2 protein was loaded onto heparin sepharose columns on which FGF2 (basic FGF) had previously been immobilized. The FGF2-FGFR2 complex was then eluted from the heparin sepharose column with a buffer containing 25mM Tris-HCl (pH 7.5) and 1.5M NaCl. The FGF2-FGFR2 complex was concentrated using Centricon 10 (Amicon) filters and further purified by size exclusion chromatography (Pharmacia, Superdex 200) with a buffer containing 25mM Tris-HCl (pH 7.5) and 1.5M NaCl. The complex migrated at a position consistent with the formation of a 1:1 FGF:FGFR complex.

Crystals were grown by vapor diffusion at 20°C using the hanging drop method. For crystallization of the FGF2-FGFR2 complex, 2 microliters of protein solution (10mg/ml, 25mM Tris-HCl (pH 7.5), 150mM NaCl) were mixed with 2 microliters of the crystallization buffer containing 10-15% PEG 4000, 10% isopropanol, and 0.1M HEPES-NaOH (pH 7.5). The FGF2-FGFR2 crystals belong to the triclinic space group P1 with unit cell dimensions $a=72.20 \text{ \AA}$, $b=71.68 \text{ \AA}$, $c=90.92 \text{ \AA}$, $\alpha=90.53^\circ$, $\beta=89.98^\circ$ and $\gamma=89.99^\circ$. There are four molecules of FGF2 and four molecules of FGFR2 in the unit cell with a solvent content of ~58%. Diffraction data were collected from flash-frozen (in a dry nitrogen stream using mother liquor containing 10% glycerol as cryo-protectant) crystals on a CCD detector (FGF2-FGFR2) at beamline X4A at the National Synchrotron Light Source, Brookhaven National Laboratory. All data were processed using DENZO and SCALEPACK (Otwinowski et al., *Methods Enzymol.* **276**, 307-326 (1997)).

Structure Determination and Refinement of the FGF2-FGFR2 structure

The structure of the FGF2-FGFR2 complex was determined by molecular replacement using the program AmoRe (Navaza, *Acta Cryst. A* **50**, 157-163 (1994)) and the structure of FGF2-FGFR1 (1CVS; Plotnikov et al., *Cell* **98**, 641-650 (1999)) as the search model. A molecular replacement solution was found for four copies of FGF2-FGFR2 complexes. Model building and refinement were performed with the programs O (Jones et al., *Acta Crystallogr. A* **47**, 110-119 (1991)) and CNS (Brünger et al., *Acta. Crystallogr. D* **54**, 905-921 (1998)), respectively. Tight non-crystallographic symmetry restraints were imposed throughout the refinement for the backbone atoms of FGF2, D2 and D3. The

structures of the FGF2-FGFR2 complex and the related FGF1-FGFR1 complex are reported together with the corresponding X-ray coordinates in Plotnikov *et al.*, *Cell* 101: 413-24 (2000), the disclosure of which is herein incorporated by reference.

The atomic model for FGF2-FGFR2 consists of four FGF2 molecules, four FGFR2
5 molecules, four sulfate ions, and 263 water molecules. The structure of FGF2-FGFR2 was refined at 2.2 Å with an R value of 24.8% (free R value of 27.3%). Data collection and refinement statistics are given in Table 7. The atomic model includes FGF2 residues 16-145 and FGFR2 residues 148-365, 4 sulfate ions, and 263 water molecules. In all four FGFR2 molecules residues 295-306 (bC-bC' loop in D3) are disordered. The average B-factor is
10 40.5 Å² for FGF2 molecules, 37.7 Å² for FGFR2 molecules, 73 Å² for sulfate ions, and 32.6 Å² for water molecules.

Atomic Structural Coordinates

Table 3 provides the atomic structural coordinates of the FGF2/FGFR2 complex dimer. The structure of the FGFR2/FGF2 complex has been described in Plotnikov *et al.*, *Cell*
15 *101*, 413-424 (2000) and the coordinates for the FGFR2/FGF2 complex are available on the internet through the Protein Data Bank (assigned Protein Data Bank ID code 1EV2), the disclosures of which are herein incorporated by reference.

Table 7 Summary of Crystallographic Analysis

Data Collection Statistics						
Structure	Resolution (Å)	Reflections (total/unique)	Completeness (%)	R _{sym} ^a (%)	Signal (I / σI)	
FGF1-FGFR1	25.0 - 2.8	49288 / 22330	97.9 (90.5) ^b	8.3 (22.6) ^b	8.6	
FGF2-FGFR2	25.0 - 2.2	206913 / 93440	96.3 (87.8) ^b	4.2 (24.1) ^b	16.3	
Refinement Statistics ^c						
Root-mean-square Deviations						
Structure	Resolution (Å)	Reflections	R _{cryst} / R _{free} ^d (%)	Bonds (Å)	Angles (°)	B-factors ^e (Å ²)
FGF1-FGFR1	25.0 - 2.8	21539	24.9 / 30.0	0.009	1.5	2.3
FGF2-FGFR2	25.0 - 2.2	84816	24.8 / 27.3	0.007	1.3	1.0

^aR_{sym} = $100 \times \sum_{hkl} \sum_i |I_i(hkl) - \langle I(hkl) \rangle| / \sum_{hkl} \sum_i I_i(hkl)$.

^bValue in parentheses is for the highest resolution shell: 2.90 – 2.80 Å (FGF1-FGFR1), 2.28 – 2.20 Å (FGF2-FGFR2).

^cAtomic model: 4963 protein atoms and 4 SO₄ ions (FGF1-FGFR1) and 9818 protein atoms, 4 SO₄ ions, and 263 water molecules (FGF2-FGFR2).

^dR_{cryst/free} = $100 \times \sum_{hkl} [|F_o(hkl)| - |F_c(hkl)|] / \sum_{hkl} |F_o(hkl)|$, where F_o (>0σ) and F_c are the observed and calculated structure factors, respectively. 5% of the reflections were used for calculation of R_{free}.

^eFor bonded protein atoms.

Example 4 - SCF Production and Structure Determination

Protein Expression, Refolding and Purification

5 Residue 1-141 of human stem cell factor ("SCF") were expressed in *E. coli* as inclusion bodies as described previously (Langley et al., Arch. Biochem. Biophys. 295, 21-28 (1992)). Inclusion bodies from 1 liter of bacterial culture were dissolved in 25 to 30 ml of 6M guanidine hydrochloride solution. After the solution became clear, DTT was added to a final concentration of 40 mM and incubated at 37°C for 30 minutes. The resulting solution
10 was diluted into 4 liters of buffered solution (10 mM Tris, pH 8.5) and allowed to stand overnight. Refolded protein was purified by ion-exchange chromatography. Protein purity, electrophoretic mobility, and biological activity were compared to SCF that had been prepared with an established procedure (Langley et al., Arch. Biochem. Biophys. 295, 21-28 (1992)) and to a commercially available sample of SCF. Disulfide linked SCF dimers were
15 not detected in this preparation as revealed by non-reducing gel electrophoresis (Langley et al., Arch. Biochem. Biophys. 295, 21-28 (1992)).

Crystallization and Data Collection

Crystals of SCF were grown by vapor diffusion at 20°C using the hanging drop method. Two crystal forms are produced. Orthorhombic crystals with unit cell dimensions a = 72.47Å, b = 83.45Å and c = 89.15Å were grown by mixing 2 microliters of protein sample
20 (15~20 mg/ml) with 2 microliters of reservoir consisting of 25~30% PEG 400, 0.25 M CaCl₂, and 0.1 M HEPES (pH 7.0). The addition of 1mM SmCl₃ to the protein solution produced the monoclinic crystals that were used in the structure determination (see Table 4).
Monoclinic crystals appeared within hours of set up.

25 Crystals for data collections were flash-frozen in liquid propane directly from the crystallization drops. Initial characterization of the SCF crystals was done at synchrotron beamlines X26C and X4A of the National Synchrotron Light Source, Brookhaven National Laboratory and the final data collection was done at Argonne National Laboratory Structural Biology Center beamline 19-ID at the Advanced Photon Source. All data were processed
30 using DENZO and the intensities were reduced and scaled using SCALEPACK (Otwinowski et al., Methods Enzymol. 276, 307-326 (1997)).

Structure Determination

A molecular replacement attempt with the data collected from the orthorhombic crystals using a model built from the alpha C atom positions of the human colony stimulating factor was not successful. Data used for the structure determination were collected from the monoclinic crystals at wavelengths 1.01 Å and 1.5 Å that are not at the absorption edge of Sm. The anomalous signal was clear from Patterson difference maps. The heavy metal position refinement and phasing was done with PHASES (Furey et al., *Methods Enzymol.* 277, 590-620 (1997)). A total of three Sm sites were used for phasing while four Sm atoms were placed in the final model. Only short pieces of helices were visible from the initial solvent flattened electron density map and they were built into the density with program O (Jones et al., *Acta Crystallogr. A* 47, 110-119 (1991)). Repeated cycles of model building and solvent flattening combined with partial structures were performed until most of all four molecules in the asymmetric unit were built. Subsequent refinements were carried out against the lower energy (wavelength of 1.01 Å) diffraction data with Crystallography and NMR System (CNS) (Brunger et al., *Acta. Crystallogr. D* 54, 905-921 (1998)). Refinement progress was monitored with the R_{free} value using a 10% randomly selected test data set, and residue positions adjusted against 2Fo-Fc electron density maps.

The structure was determined by using anomalous scattering differences of samarium ions in the crystal at two wavelengths and refined to 2.3 Å (Table 4). There are four molecules in each asymmetric unit and the initial experimental electron density clearly showed the four-helix bundle and two beta strands in the molecules. The connecting loops, as well as the N-terminal and C-terminal regions, were built from 2Fo-Fc maps. Table 4 gives the statistics of the final model, which contains 120 solvent molecules, four samarium ions, two calcium ions and one Tris molecule. The structure of the human stem cell factor homodimer has been described in Zhang et al., *Proc.Nat.Acad.Sci.* 97(14), 7732-7737 (2000) and the coordinates for the human SCF dimer are available on the internet through the Protein Data Bank (Protein Data Bank ID code 1EXZ) at <http://www.rcsb.org/pdb/cgi/explore.cgi?pid=17825967231743&pdbld=1EXZ>, the disclosures of which are herein incorporated by reference.

General Features of the Structure

Although there are four SCF protomers in the crystallographic asymmetric unit, the biological dimer is unmistakably recognizable. The four protomers are superimposable except for the N-terminal and C-terminal loop regions. These loops are flexible and adopt

multiple conformations in the four molecules in the asymmetric unit. The protomers in the biological dimer are packed head-to-head in a manner of almost perfect C2 symmetry (see Fig. 19). The dimer bends approximately 30° toward the side of the beta strands, resulting in an elongated shape with approximate dimensions of 87Å x 32Å x 25Å.

SCF is a non-covalent homodimer composed of two slightly wedged protomers. The overall topology of a SCF protomer displays an antiparallel four-helix bundle fold (see Fig. 19), in a manner similar to other short-chain helix cytokines (Roswarski et al., Structure 2, 159-173 (1994)). The helices run up-up-down-down, with two crossing beta strands wrapped on one side. The structure of the dimer interface shows that dimerization is mediated by extensive polar and non-polar interactions between the two protomers with a large buried surface area. The structure includes a hydrophobic crevice and a charged region at the tail of each protomer that functions as a potential receptor binding site. The X-ray structure of SCF shows that there are extensive interactions between the two SCF protomers, with approximately 1700 Å² surface area buried upon dimerization (calculated with a probe of radius 1.4 Å). This buried surface area accounts for about 20% of the total surface of each individual protomer, and is twice that reported for the 850 Å² buried surface area of the disulfide linked M-CSF dimer.

The side chains of the hydrophobic residues of the four helices pack the core of each monomer. Cys4 and Cys89 as well as Cys43 and Cys138 form two intramolecular disulfide pairs. Both disulfide bonds are located at one end (tail) of each protomer away from the dimer interface. The Cys4-Cys89 disulfide bond is more exposed than Cys43-Cys138, a disulfide bond wrapped by the side chains of Val39, Leu98, Pro40 and His42. This probably explains why the Cys4-Cys89 bond is more susceptible to chemical reduction than the Cys43-Cys138 disulfide bond (Lu et al., J. Biol. Chem. 271, 11309-1131 (1996)).

The SCF dimer interface is composed of loops between alphaA and beta1, alphaB and alphaC, and can also be divided into three layers (see Fig. 21). The bottom layer at the side of the beta strands is composed of hydrophobic interactions. Side chains from Tyr26, Pro23, Phe63 and Leu22 from one protomer pack against corresponding side chains from the other protomer, with Tyr26-Asp25' and Tyr26'-Asp25 forming a hydrogen bond circle as the carpet (see Fig. 2B). These intermolecular hydrogen bond pair replace the intermolecular disulfide bond between the two M-CSF protomers (Bazan, Cell 65, 9-10 (1991); Broudy, Blood 90, 1345-1364 (1997)). Sequence alignment shows that this Tyr-Asp pair is preserved in *flt3*

ligand, the third member of this family of cytokines that also forms dimers by non-covalent interactions (Hannum et al., *Nature* 368, 643-648 (1994)). At the core of the interface, the side chains of four asparagine residues (Asn72 and Asn21 from both protomers) form hydrogen bonds among themselves as well as via a water molecule (see Fig. 21). This well coordinated water molecule forms hydrogen bonds with an average bond length of 2.7Å with the two carbonyl oxygen atoms of the two symmetry related Asn21 residues. The top layer involves interactions between loop alphaB-alphaC of one protomer against that of the other protomer. In addition to a dozen hydrogen bonds formed between the two protomers, there are four possible salt bridges between Lys17-Glu68', Lys24-Asp61', and their symmetry related counterparts.

Example 5 - Structure Determination Ternary FGF2-FGFR1-Heparin complex The expression, purification and crystallization of FGF2-FGFR1 complexes were carried out as described previously (Plotnikov et al., *Cell* 98, 641-650 (1999)). Crystals of the native FGF2-FGFR1 complex were incubated in 10 µl of stabilizing solution (40 % PEG 8000, 0.25M ammonium sulfate, 0.1M Tris-HCl (pH 8.5)) containing 1mM deca-saccharide for one week at 20 °C. Data were collected on a flash-frozen crystal (in a dry nitrogen stream using mother liquor containing 10 % glycerol as cryo-protectant) on a CCD detector at beamline X4A at the National Synchrotron Light Source, Brookhaven National Laboratory. Data were processed using DENZO and SCALEPACK (Otwinowski, "Oscillation data reduction program," in Proceedings of the CCP4 Study Weekend, Sawyer et al., (eds). (SERC Daresbury Laboratory, Daresbury, United Kingdom) (1993)). Difference Fourier electron density maps were computed using the FGF2-FGFR1 structure (Plotnikov et al., 1999). Initial model for the oligosaccharide was taken from the crystal structure of FGF2 in complex with hexasaccharide (1BFC) (Faham et al., *Science* 271, 1116-1120 (1996)). The parameters for the oligosaccharide were generated using the HIC-Up server (Kleywegt et al., *Acta Crystallogr. D* 54, 1119-1131 (1998)). Simulated annealing and positional/B-factor refinement were performed using CNS (Bruenger et al., *Acta. Crystallogr. D* 54, 905-921 (1998)). Model building into $2F_o - F_c$ and $F_o - F_c$ electron density maps was performed with the program O (Jones et al., *Acta Crystallogr. A* 47, 110-119 (1991)). The average B-factor is 36.9 Å² for all atoms, 35.0 Å² for FGF2, 35.3 Å² for FGFR1, and 72.4 Å² for deca-saccharide molecules.

Structure Determination

Since a heparin binding canyon is present in the FGF2-FGFR1 crystals, incubation of these crystals with decasaccharide facilitated obtaining a ternary FGF-FGFR-heparin complex. The crystal structure of the ternary FGF2-FGFR1-heparin complex was solved using the phases obtained from the FGF2-FGFR1 structure. Data collection and refinement statistics are given in Table 5. It was anticipated to find a single decasaccharide molecule (heparin) traversing the canyon and bridging the ligands. However, the difference Fourier electron density map clearly shows two decasaccharide molecules in the canyon (see Figs. 27 and 28). Only the first 6 sugar rings (A to F) are observed to interact with protein. Consequently, the electron density is well defined for these rings. In addition, due to favorable lattice contacts, two additional sugars (rings G and H) could be modeled for one of the decasaccharides.

Atomic Structural Coordinates

Table 6 provides the atomic structural coordinates of the the ternary FGF2-FGFR1-heparin complex.

Heparin Structure

The heparin can be approximated as a helix generated by repeating disaccharide units of D-glucosamine (GlcN) and L-iduronic acid (IdoA) joined by α -1-4 linkages. Each disaccharide unit is sulfated at three positions; one at the 2-hydroxyl group of IdoA and two at the 2-amino and 6-hydroxyl groups of GlcN. Sulfate and carboxylate groups form the negatively-charged edges of the heparin helix and appear on a given side of the helix every 17-19 Å on average. These helical parameters are in agreement with the X-ray fiber diffraction values of 8.7 Å and 180° for a heparin polymer (Nieduszynski et al., Am. Chem. Soc. Symp. Ser. 48, 73 (1977)). Heparin polysaccharides are polar entities with a non-reducing end (O4) and a reducing end (O1). In the crystal structure, the decasaccharides bind with their non-reducing ends in the center of canyon and run out onto the high-affinity heparin binding sites of the ligands. Consequently, the symmetry of the dimeric assembly is maintained. Traversing of the canyon by one polar heparin molecule disrupts the two-fold symmetry of the system.

Several intramolecular hydrogen bonds stabilize the helical conformation of the decasaccharide (data not shown). The GlcN rings are all found in a chair conformation. The IdoA rings are in either a chair or a skewed boat conformation as previously observed in the

solution structure of a dodecasaccharide (Mulloy et al., *Biochem. J.* 293, 849-858 (1993)), suggesting that IdoA can adopt multiple conformations depending on the contacts it makes with FGF or FGFR. It is likely that the conformational flexibility of IdoA plays a role in specific recognition of various FGFs or FGFRs.

5 Heparin-FGF and Heparin-FGFR Interactions

Each deca-saccharide makes a total of 30 hydrogen bonds with FGF and both FGFRs (see Figs. 29 and 30). Within one 1:1 FGF:FGFR complex, 25 hydrogen bonds are made with heparin. The remaining 5 hydrogen bonds with heparin originate from the FGFR of the adjoining 1:1 FGF:FGFR complex. Lysines 160, 163, 172, 175 and 177, located on the heparin-binding surface of D2, form 7 hydrogen bonds between FGFR and heparin in the context of a 1:1 FGF:FGFR complex. With the exception of a single hydrogen bond between Lys-175 and heparin, which is mediated by a ring oxygen of heparin (ring A), the remainder of these hydrogen bonds are sulfate-mediated. All three types of heparin sulfate groups (N-sulfate, 2-O-sulfate and 6-O-sulfate) are employed in these interactions (Figs. 29 and 30).

15 At the FGF-heparin interface, a total of 18 hydrogen bonds are made, of which half are sulfate-mediated (Figs. 29 and 30). The other half is mediated by carboxylate, linker or ring oxygens of heparin. Surface residues Asn-27 (located in the β 1- β 2 loop), Arg-120, and Thr-121 (located in the β 9- β 10 loop), Lys-125, Lys-129, Gln-134, Lys-135, and Ala-136 (located in β 11- β 12 loop) form the heparin-binding site on FGF. These residues are the same ones that interact with heparin in the FGF2-hexasaccharide structure (Faham et al., *Science* 271, 1116-1120 (1996)). However, since the orientation of the heparin helix with respect to FGF is flipped between these two structures, the hydrogen binding pairs are not identical.

25 Aside from a single hydrogen bond between Lys-135 of FGF2 and a 6-O-sulfate (ring B) of heparin, the remainder of the sulfate-mediated interactions involve N-sulfate and 2-O-sulfate groups. This provides an explanation for why FGF2 has been reported to retain binding ability to 6-O-desulfated heparin. Nevertheless, 6-O-desulfated heparin oligosaccharides are still ineffective in promoting FGF2-FGFR interaction. In the present crystal structure, the 6-O-sulfate of ring B (Figs. 29 and 30) makes hydrogen bonds with heparin-binding residues of both FGF and FGFR. Concurrent binding of both FGF and FGFR to the same sulfate group of heparin clearly serves to increase the apparent affinity of FGF for FGFR. Hence, the present structure also provides a molecular basis for the well-documented heparin-dependent 1:1 FGF:FGFR interaction.

In addition to promoting FGF-FGFR interaction within the 1:1 FGF:FGFR complex, heparin also interacts with the adjoining receptor across the two-fold dimer. A total of 5 hydrogen bonds are made at this interface between FGFR residues Lys-207 and Arg-209 and sugar rings A-D of heparin (Figs. 29 and 30). Hydrophobic contacts between Ile-216 and the non-reduced ring A of heparin further fortify this interface. The hydrogen bonds between Lys-207 and heparin are mediated via carboxylate, linker and ring oxygens of heparin. In contrast, Arg-209 makes hydrogen bonds with the 6-O-sulfate group of ring D, thereby emphasizing the critical dual role of 6-O-sulfate in promoting 1:1 FGF2:FGFR interaction and inducing 2:2 FGF:FGFR dimer formation. The crystal structure provides a plausible explanation for the well-documented inability of 6-O-desulfated heparin oligosaccharides to promote mitogenic activities by failing to induce receptor dimerization.

Table 5. Summary of Crystallographic Analysis

Data Collection Statistics					
Resolution (Å)	Reflections (total/unique)	Completeness (%)	R _{sym} ^a (%)	Signal (⟨ I / σ I⟩)	
30.0 – 3.0	97669 / 19774	97.2 (92.6) ^b	7.0 (30.3) ^b	12.3	
Refinement Statistics ^c					
Resolution (Å)	Reflections	R _{cryst} / R _{free} ^d (%)	Root-mean-square Deviations		
			Bonds (Å)	Angles (°)	B-factors ^e (Å ²)
25.0-3.0	18305	23.1 / 28.9	0.011	1.6	1.28

$$^a R_{\text{sym}} = 100 \times \frac{\sum_{hkl} \sum_i |I_i(hkl) - \langle I(hkl) \rangle|}{\sum_{hkl} \sum_i I_i(hkl)}$$

^bValue in parentheses is for the highest resolution shell: 3.11.-3.00 Å.

^cAtomic model: 5245 protein atoms and 245 deca-saccharide atoms.

^dR_{cryst/free} = 100 × $\frac{\sum_{hkl} ||F_o(hkl)| - |F_c(hkl)||}{\sum_{hkl} |F_o(hkl)|}$, where F_o (>2σ) and F_c are the observed and calculated structure factors, respectively. 5% of the reflections were used for calculation of R_{free}.

^eFor bonded atoms.

The invention illustratively described herein may be practiced in the absence of any element or elements, limitation or limitations which is not specifically disclosed herein. The terms and expressions which have been employed are used as terms of description and not of limitation, and there is no intention that in the use of such terms and expressions of excluding
5 any equivalents of the features shown and described or portions thereof, but it is recognized that various modifications are possible within the scope of the invention claimed. Thus, it should be understood that although the present invention has been specifically disclosed by preferred embodiments and optional features, modification and variation of the concepts herein disclosed may be resorted to by those skilled in the art, and that such modifications
10 and variations are considered to be within the scope of this invention as defined by the appended claims.

The contents of the articles, patents, and patent applications, and all other documents and electronically available information mentioned or cited herein, are hereby incorporated by reference in their entirety to the same extent as if each individual publication was
15 specifically and individually indicated to be incorporated by reference. Applicants reserve the right to physically incorporate into this application any and all materials and information from any such articles, patents, patent applications, or other documents.

The terms and expressions employed herein have been used as terms of description and not of limitation, and there is no intention in the use of such terms and expressions of
20 excluding any equivalents of the features shown and described or portions thereof, but it is recognized that various modifications are possible within the scope of the invention claimed. Thus, it should be understood that although the present invention has been specifically disclosed by preferred embodiments and optional features, modification and variation of the inventions embodied therein herein disclosed may be resorted to by those skilled in the art,
25 and that such modifications and variations are considered to be within the scope of this invention.

The structure of the FGFR1(D2-D3)/FGF2 complex has been described in Plotnikov et al., *Cell* **98**, 641-650 (1999). The structures of the FGFR1(D2-D3)/FGF1 complex and the FGFR2/FGF2 complex are described in Plotnikov et al., *Cell* **101**, 413-424 (2000). The
30 structure of the human stem cell factor homodimer is described in Zhang et al.,

Proc.Nat.Acad.Sci. **97(14)**, 7732-7737 (2000). The disclosures of these three references are herein incorporated by reference.

The following bibliography includes general references relating to RPTKs as well as citations relating more specifically to the structure of the FGF-FGFR-heparin ternary
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Cross Reference to Related Applications

This application claims priority under 35 U.S.C. §119(e) of U.S. Provisional Application Serial No. 60/151,810, filed August 30, 1999, the disclosure of which is herein incorporated by reference in its entirety.

Table 1

Table 1
FGFR1 D2-D3 Complexed with FGF2

ATOM	1	CB	HIS	A	16	69.016	29.963	137.171	1.00	41.99
ATOM	2	CG	HIS	A	16	67.950	29.424	138.074	1.00	44.70
ATOM	3	CD2	HIS	A	16	67.435	29.899	139.233	1.00	44.60
ATOM	4	ND1	HIS	A	16	67.286	28.242	137.817	1.00	45.58
ATOM	5	CE1	HIS	A	16	66.412	28.011	138.781	1.00	45.34
ATOM	6	NE2	HIS	A	16	66.481	29.002	139.652	1.00	45.97
ATOM	7	C	HIS	A	16	68.950	28.141	135.513	1.00	42.15
ATOM	8	O	HIS	A	16	68.419	28.749	134.583	1.00	44.62
ATOM	9	N	HIS	A	16	71.039	29.455	135.830	1.00	40.32
ATOM	10	CA	HIS	A	16	69.840	28.875	136.502	1.00	41.81
ATOM	11	N	PHE	A	17	68.761	26.844	135.742	1.00	41.35
ATOM	12	CA	PHE	A	17	67.965	25.985	134.864	1.00	40.26
ATOM	13	CB	PHE	A	17	68.024	24.543	135.383	1.00	37.06
ATOM	14	CG	PHE	A	17	67.253	24.321	136.661	1.00	36.58
ATOM	15	CD1	PHE	A	17	65.951	23.823	136.632	1.00	35.88
ATOM	16	CD2	PHE	A	17	67.796	24.674	137.891	1.00	35.10
ATOM	17	CE1	PHE	A	17	65.210	23.686	137.809	1.00	32.72
ATOM	18	CE2	PHE	A	17	67.052	24.539	139.064	1.00	31.85
ATOM	19	CZ	PHE	A	17	65.761	24.047	139.018	1.00	30.46
ATOM	20	C	PHE	A	17	66.510	26.413	134.643	1.00	41.70
ATOM	21	O	PHE	A	17	65.914	26.068	133.623	1.00	42.96
ATOM	22	N	LYS	A	18	65.942	27.163	135.587	1.00	42.87
ATOM	23	CA	LYS	A	18	64.556	27.622	135.488	1.00	42.89
ATOM	24	CB	LYS	A	18	64.083	28.161	136.843	1.00	40.05
ATOM	25	C	LYS	A	18	64.348	28.702	134.420	1.00	43.25
ATOM	26	O	LYS	A	18	63.273	28.783	133.818	1.00	43.36
ATOM	27	N	ASP	A	19	65.377	29.522	134.190	1.00	42.81
ATOM	28	CA	ASP	A	19	65.312	30.618	133.216	1.00	40.93
ATOM	29	CB	ASP	A	19	66.335	31.686	133.579	1.00	41.73
ATOM	30	CG	ASP	A	19	66.025	32.348	134.896	1.00	43.73
ATOM	31	OD1	ASP	A	19	65.882	31.624	135.903	1.00	46.50
ATOM	32	OD2	ASP	A	19	65.919	33.591	134.931	1.00	43.92
ATOM	33	C	ASP	A	19	65.520	30.193	131.765	1.00	38.86
ATOM	34	O	ASP	A	19	66.038	29.108	131.492	1.00	38.38
ATOM	35	N	PRO	A	20	65.097	31.044	130.809	1.00	36.59
ATOM	36	CD	PRO	A	20	64.245	32.233	130.938	1.00	36.39
ATOM	37	CA	PRO	A	20	65.263	30.712	129.396	1.00	34.39
ATOM	38	CB	PRO	A	20	64.474	31.799	128.673	1.00	31.04
ATOM	39	CG	PRO	A	20	63.467	32.189	129.638	1.00	33.58
ATOM	40	C	PRO	A	20	66.726	30.773	129.038	1.00	34.58
ATOM	41	O	PRO	A	20	67.507	31.506	129.657	1.00	35.62
ATOM	42	N	LYS	A	21	67.089	30.000	128.027	1.00	32.92
ATOM	43	CA	LYS	A	21	68.449	29.959	127.556	1.00	32.11
ATOM	44	CB	LYS	A	21	69.042	28.572	127.773	1.00	31.65
ATOM	45	CG	LYS	A	21	69.408	28.268	129.214	1.00	33.27
ATOM	46	CD	LYS	A	21	70.054	26.901	129.323	1.00	32.63
ATOM	47	CE	LYS	A	21	70.056	26.396	130.757	1.00	34.58
ATOM	48	NZ	LYS	A	21	70.472	24.961	130.814	1.00	35.96
ATOM	49	C	LYS	A	21	68.481	30.296	126.078	1.00	32.97
ATOM	50	O	LYS	A	21	67.484	30.154	125.377	1.00	32.04
ATOM	51	N	ARG	A	22	69.626	30.779	125.613	1.00	33.48
ATOM	52	CA	ARG	A	22	69.784	31.097	124.209	1.00	32.66
ATOM	53	CB	ARG	A	22	70.360	32.501	124.032	1.00	32.91
ATOM	54	CG	ARG	A	22	69.297	33.575	123.837	1.00	34.86

Table 1

ATOM	55	CD	ARG	A	22	69.895	34.819	123.216	1.00	36.56
ATOM	56	NE	ARG	A	22	70.410	35.730	124.227	1.00	41.57
ATOM	57	CZ	ARG	A	22	69.640	36.525	124.961	1.00	44.42
ATOM	58	NH1	ARG	A	22	68.326	36.510	124.781	1.00	47.29
ATOM	59	NH2	ARG	A	22	70.174	37.330	125.873	1.00	46.76
ATOM	60	C	ARG	A	22	70.743	30.050	123.680	1.00	31.65
ATOM	61	O	ARG	A	22	71.782	29.812	124.285	1.00	32.89
ATOM	62	N	LEU	A	23	70.392	29.389	122.585	1.00	29.77
ATOM	63	CA	LEU	A	23	71.296	28.386	122.050	1.00	28.94
ATOM	64	CB	LEU	A	23	70.528	27.131	121.626	1.00	26.35
ATOM	65	CG	LEU	A	23	69.825	26.375	122.758	1.00	24.87
ATOM	66	CD1	LEU	A	23	69.641	24.951	122.332	1.00	21.75
ATOM	67	CD2	LEU	A	23	70.656	26.393	124.034	1.00	26.45
ATOM	68	C	LEU	A	23	72.160	28.911	120.897	1.00	30.13
ATOM	69	O	LEU	A	23	71.690	29.114	119.774	1.00	29.81
ATOM	70	N	TYR	A	24	73.436	29.136	121.199	1.00	29.52
ATOM	71	CA	TYR	A	24	74.399	29.633	120.224	1.00	27.79
ATOM	72	CB	TYR	A	24	75.404	30.516	120.962	1.00	25.04
ATOM	73	CG	TYR	A	24	76.606	30.962	120.168	1.00	27.06
ATOM	74	CD1	TYR	A	24	77.653	30.079	119.899	1.00	26.87
ATOM	75	CE1	TYR	A	24	78.785	30.489	119.219	1.00	24.47
ATOM	76	CD2	TYR	A	24	76.727	32.283	119.722	1.00	26.32
ATOM	77	CE2	TYR	A	24	77.865	32.705	119.039	1.00	24.37
ATOM	78	CZ	TYR	A	24	78.888	31.796	118.795	1.00	23.72
ATOM	79	OH	TYR	A	24	80.023	32.183	118.134	1.00	22.17
ATOM	80	C	TYR	A	24	75.077	28.448	119.509	1.00	28.20
ATOM	81	O	TYR	A	24	75.748	27.635	120.132	1.00	27.40
ATOM	82	N	CYS	A	25	74.887	28.342	118.199	1.00	29.93
ATOM	83	CA	CYS	A	25	75.471	27.239	117.437	1.00	30.80
ATOM	84	CB	CYS	A	25	74.690	27.015	116.141	1.00	29.39
ATOM	85	SG	CYS	A	25	75.266	25.611	115.174	1.00	27.95
ATOM	86	C	CYS	A	25	76.926	27.506	117.111	1.00	32.90
ATOM	87	O	CYS	A	25	77.279	28.585	116.633	1.00	35.05
ATOM	88	N	LYS	A	26	77.774	26.519	117.370	1.00	34.20
ATOM	89	CA	LYS	A	26	79.205	26.646	117.103	1.00	33.90
ATOM	90	CB	LYS	A	26	79.917	25.362	117.540	1.00	33.25
ATOM	91	CG	LYS	A	26	81.420	25.379	117.382	1.00	33.15
ATOM	92	CD	LYS	A	26	82.028	24.156	118.038	1.00	33.12
ATOM	93	CE	LYS	A	26	83.540	24.186	117.966	1.00	33.97
ATOM	94	NZ	LYS	A	26	84.056	23.910	116.590	1.00	38.44
ATOM	95	C	LYS	A	26	79.466	26.903	115.621	1.00	34.79
ATOM	96	O	LYS	A	26	80.472	27.520	115.253	1.00	35.31
ATOM	97	N	ASN	A	27	78.548	26.439	114.775	1.00	34.52
ATOM	98	CA	ASN	A	27	78.696	26.588	113.340	1.00	33.29
ATOM	99	CB	ASN	A	27	78.043	25.408	112.637	1.00	35.53
ATOM	100	CG	ASN	A	27	78.423	25.320	111.176	1.00	37.03
ATOM	101	OD1	ASN	A	27	79.601	25.349	110.829	1.00	39.05
ATOM	102	ND2	ASN	A	27	77.427	25.200	110.311	1.00	38.14
ATOM	103	C	ASN	A	27	78.129	27.886	112.794	1.00	33.64
ATOM	104	O	ASN	A	27	77.013	27.917	112.271	1.00	32.60
ATOM	105	N	GLY	A	28	78.909	28.958	112.922	1.00	33.42
ATOM	106	CA	GLY	A	28	78.489	30.247	112.408	1.00	32.48
ATOM	107	C	GLY	A	28	78.101	31.273	113.447	1.00	31.65
ATOM	108	O	GLY	A	28	77.968	32.458	113.146	1.00	30.93
ATOM	109	N	GLY	A	29	77.904	30.821	114.673	1.00	30.89

Table 1

ATOM	110	CA	GLY	A	29	77.527	31.745	115.716	1.00	32.62
ATOM	111	C	GLY	A	29	76.065	32.109	115.616	1.00	33.06
ATOM	112	O	GLY	A	29	75.639	33.179	116.061	1.00	33.90
ATOM	113	N	PHE	A	30	75.293	31.214	115.013	1.00	33.36
ATOM	114	CA	PHE	A	30	73.863	31.425	114.869	1.00	33.15
ATOM	115	CB	PHE	A	30	73.339	30.732	113.604	1.00	32.93
ATOM	116	CG	PHE	A	30	73.802	31.366	112.320	1.00	34.10
ATOM	117	CD1	PHE	A	30	74.945	30.912	111.674	1.00	33.99
ATOM	118	CD2	PHE	A	30	73.101	32.438	111.763	1.00	33.52
ATOM	119	CE1	PHE	A	30	75.381	31.511	110.494	1.00	32.91
ATOM	120	CE2	PHE	A	30	73.533	33.042	110.585	1.00	31.25
ATOM	121	CZ	PHE	A	30	74.674	32.578	109.951	1.00	31.88
ATOM	122	C	PHE	A	30	73.091	30.900	116.083	1.00	32.68
ATOM	123	O	PHE	A	30	73.306	29.778	116.531	1.00	31.40
ATOM	124	N	PHE	A	31	72.206	31.737	116.611	1.00	33.00
ATOM	125	CA	PHE	A	31	71.341	31.386	117.732	1.00	34.02
ATOM	126	CB	PHE	A	31	70.856	32.643	118.445	1.00	34.25
ATOM	127	CG	PHE	A	31	71.883	33.283	119.306	1.00	35.90
ATOM	128	CD1	PHE	A	31	72.290	32.670	120.488	1.00	36.24
ATOM	129	CD2	PHE	A	31	72.438	34.503	118.952	1.00	34.85
ATOM	130	CE1	PHE	A	31	73.237	33.266	121.306	1.00	35.63
ATOM	131	CE2	PHE	A	31	73.385	35.105	119.763	1.00	35.21
ATOM	132	CZ	PHE	A	31	73.786	34.484	120.946	1.00	35.42
ATOM	133	C	PHE	A	31	70.110	30.681	117.163	1.00	33.76
ATOM	134	O	PHE	A	31	69.507	31.172	116.216	1.00	34.00
ATOM	135	N	LEU	A	32	69.727	29.544	117.735	1.00	33.72
ATOM	136	CA	LEU	A	32	68.546	28.843	117.246	1.00	32.35
ATOM	137	CB	LEU	A	32	68.324	27.520	117.978	1.00	33.20
ATOM	138	CG	LEU	A	32	67.212	26.674	117.337	1.00	35.02
ATOM	139	CD1	LEU	A	32	67.743	26.012	116.074	1.00	34.56
ATOM	140	CD2	LEU	A	32	66.724	25.611	118.301	1.00	34.97
ATOM	141	C	LEU	A	32	67.333	29.739	117.448	1.00	30.84
ATOM	142	O	LEU	A	32	67.113	30.288	118.533	1.00	31.20
ATOM	143	N	ARG	A	33	66.550	29.887	116.390	1.00	29.27
ATOM	144	CA	ARG	A	33	65.374	30.734	116.445	1.00	30.54
ATOM	145	CB	ARG	A	33	65.548	31.920	115.508	1.00	28.32
ATOM	146	CG	ARG	A	33	64.365	32.834	115.547	1.00	26.41
ATOM	147	CD	ARG	A	33	64.640	34.102	114.822	1.00	23.29
ATOM	148	NE	ARG	A	33	65.039	33.869	113.445	1.00	18.71
ATOM	149	CZ	ARG	A	33	65.222	34.854	112.574	1.00	18.55
ATOM	150	NH1	ARG	A	33	65.037	36.113	112.957	1.00	13.11
ATOM	151	NH2	ARG	A	33	65.602	34.585	111.334	1.00	18.20
ATOM	152	C	ARG	A	33	64.062	30.030	116.100	1.00	32.27
ATOM	153	O	ARG	A	33	63.993	29.229	115.149	1.00	33.66
ATOM	154	N	ILE	A	34	63.022	30.330	116.876	1.00	30.42
ATOM	155	CA	ILE	A	34	61.718	29.750	116.625	1.00	29.36
ATOM	156	CB	ILE	A	34	61.230	28.904	117.788	1.00	27.41
ATOM	157	CG2	ILE	A	34	59.744	28.626	117.631	1.00	25.89
ATOM	158	CG1	ILE	A	34	62.001	27.587	117.822	1.00	26.27
ATOM	159	CD1	ILE	A	34	61.727	26.757	119.052	1.00	25.37
ATOM	160	C	ILE	A	34	60.710	30.847	116.370	1.00	30.63
ATOM	161	O	ILE	A	34	60.280	31.534	117.293	1.00	30.14
ATOM	162	N	HIS	A	35	60.350	31.001	115.099	1.00	31.46
ATOM	163	CA	HIS	A	35	59.383	32.002	114.665	1.00	33.03
ATOM	164	CB	HIS	A	35	59.334	32.064	113.136	1.00	32.91

Table 1

ATOM	165	CG	HIS	A	35	60.620	32.472	112.498	1.00	32.44
ATOM	166	CD2	HIS	A	35	61.634	31.734	111.985	1.00	33.64
ATOM	167	ND1	HIS	A	35	60.975	33.790	112.321	1.00	32.36
ATOM	168	CE1	HIS	A	35	62.151	33.849	111.722	1.00	33.74
ATOM	169	NE2	HIS	A	35	62.573	32.615	111.506	1.00	33.60
ATOM	170	C	HIS	A	35	57.981	31.667	115.155	1.00	32.67
ATOM	171	O	HIS	A	35	57.588	30.500	115.213	1.00	32.12
ATOM	172	N	PRO	A	36	57.205	32.691	115.508	1.00	33.10
ATOM	173	CD	PRO	A	36	57.659	34.079	115.691	1.00	32.12
ATOM	174	CA	PRO	A	36	55.829	32.511	115.988	1.00	34.09
ATOM	175	CB	PRO	A	36	55.339	33.942	116.136	1.00	32.69
ATOM	176	CG	PRO	A	36	56.588	34.657	116.587	1.00	33.71
ATOM	177	C	PRO	A	36	54.968	31.705	115.009	1.00	34.10
ATOM	178	O	PRO	A	36	53.993	31.080	115.393	1.00	34.65
ATOM	179	N	ASP	A	37	55.347	31.720	113.742	1.00	34.54
ATOM	180	CA	ASP	A	37	54.610	31.009	112.719	1.00	34.85
ATOM	181	CB	ASP	A	37	54.831	31.717	111.378	1.00	35.76
ATOM	182	CG	ASP	A	37	56.219	31.444	110.778	1.00	39.05
ATOM	183	OD1	ASP	A	37	57.142	30.974	111.495	1.00	37.89
ATOM	184	OD2	ASP	A	37	56.387	31.709	109.566	1.00	41.38
ATOM	185	C	ASP	A	37	55.021	29.532	112.623	1.00	35.51
ATOM	186	O	ASP	A	37	54.530	28.801	111.755	1.00	35.50
ATOM	187	N	GLY	A	38	55.927	29.098	113.500	1.00	34.87
ATOM	188	CA	GLY	A	38	56.371	27.715	113.471	1.00	32.57
ATOM	189	C	GLY	A	38	57.635	27.428	112.676	1.00	32.56
ATOM	190	O	GLY	A	38	58.130	26.300	112.696	1.00	31.39
ATOM	191	N	ARG	A	39	58.170	28.421	111.974	1.00	32.64
ATOM	192	CA	ARG	A	39	59.387	28.197	111.200	1.00	34.59
ATOM	193	CB	ARG	A	39	59.576	29.307	110.170	1.00	35.46
ATOM	194	CG	ARG	A	39	58.676	29.184	108.946	1.00	37.20
ATOM	195	CD	ARG	A	39	58.918	30.321	107.970	1.00	37.24
ATOM	196	NE	ARG	A	39	58.727	31.623	108.606	1.00	36.10
ATOM	197	CZ	ARG	A	39	59.006	32.785	108.025	1.00	36.28
ATOM	198	NH1	ARG	A	39	58.800	33.917	108.681	1.00	38.00
ATOM	199	NH2	ARG	A	39	59.493	32.816	106.791	1.00	35.62
ATOM	200	C	ARG	A	39	60.585	28.157	112.135	1.00	35.64
ATOM	201	O	ARG	A	39	60.576	28.812	113.177	1.00	37.00
ATOM	202	N	VAL	A	40	61.610	27.390	111.763	1.00	35.00
ATOM	203	CA	VAL	A	40	62.829	27.257	112.565	1.00	33.88
ATOM	204	CB	VAL	A	40	62.989	25.787	113.115	1.00	33.74
ATOM	205	CG1	VAL	A	40	64.364	25.590	113.742	1.00	31.93
ATOM	206	CG2	VAL	A	40	61.918	25.487	114.146	1.00	30.42
ATOM	207	C	VAL	A	40	64.070	27.611	111.735	1.00	34.33
ATOM	208	O	VAL	A	40	64.236	27.126	110.617	1.00	33.67
ATOM	209	N	ASP	A	41	64.939	28.457	112.285	1.00	34.88
ATOM	210	CA	ASP	A	41	66.172	28.851	111.603	1.00	33.77
ATOM	211	CB	ASP	A	41	65.871	29.850	110.483	1.00	33.17
ATOM	212	CG	ASP	A	41	65.184	31.111	110.984	1.00	34.75
ATOM	213	OD1	ASP	A	41	65.026	32.052	110.177	1.00	34.83
ATOM	214	OD2	ASP	A	41	64.794	31.167	112.173	1.00	36.12
ATOM	215	C	ASP	A	41	67.148	29.462	112.600	1.00	33.16
ATOM	216	O	ASP	A	41	66.972	29.327	113.809	1.00	32.95
ATOM	217	N	GLY	A	42	68.170	30.144	112.093	1.00	32.65
ATOM	218	CA	GLY	A	42	69.154	30.761	112.966	1.00	32.74
ATOM	219	C	GLY	A	42	69.387	32.246	112.721	1.00	33.27

Table 1

ATOM	220	O	GLY	A	42	69.042	32.781	111.663	1.00	34.04
ATOM	221	N	VAL	A	43	69.979	32.913	113.707	1.00	31.48
ATOM	222	CA	VAL	A	43	70.277	34.334	113.626	1.00	31.31
ATOM	223	CB	VAL	A	43	69.081	35.211	114.037	1.00	31.65
ATOM	224	CG1	VAL	A	43	68.090	35.255	112.932	1.00	32.00
ATOM	225	CG2	VAL	A	43	68.446	34.680	115.327	1.00	29.54
ATOM	226	C	VAL	A	43	71.391	34.689	114.578	1.00	31.62
ATOM	227	O	VAL	A	43	71.384	34.269	115.725	1.00	32.45
ATOM	228	N	ARG	A	44	72.330	35.501	114.120	1.00	32.59
ATOM	229	CA	ARG	A	44	73.430	35.900	114.978	1.00	32.23
ATOM	230	CB	ARG	A	44	74.634	36.305	114.133	1.00	30.10
ATOM	231	CG	ARG	A	44	75.173	35.165	113.321	1.00	28.38
ATOM	232	CD	ARG	A	44	76.442	35.549	112.600	1.00	29.66
ATOM	233	NE	ARG	A	44	76.916	34.448	111.762	1.00	32.18
ATOM	234	CZ	ARG	A	44	77.421	34.607	110.543	1.00	30.72
ATOM	235	NH1	ARG	A	44	77.521	35.821	110.020	1.00	31.62
ATOM	236	NH2	ARG	A	44	77.809	33.556	109.842	1.00	29.64
ATOM	237	C	ARG	A	44	73.047	37.025	115.928	1.00	32.13
ATOM	238	O	ARG	A	44	73.689	37.207	116.960	1.00	31.61
ATOM	239	N	GLU	A	45	71.990	37.762	115.598	1.00	32.69
ATOM	240	CA	GLU	A	45	71.573	38.873	116.445	1.00	34.53
ATOM	241	CB	GLU	A	45	70.578	39.769	115.694	1.00	36.59
ATOM	242	CG	GLU	A	45	70.223	41.025	116.479	1.00	41.80
ATOM	243	CD	GLU	A	45	71.440	41.594	117.213	1.00	44.59
ATOM	244	OE1	GLU	A	45	72.466	41.834	116.522	1.00	46.33
ATOM	245	OE2	GLU	A	45	71.371	41.786	118.460	1.00	41.23
ATOM	246	C	GLU	A	45	71.003	38.474	117.814	1.00	32.72
ATOM	247	O	GLU	A	45	69.852	38.092	117.935	1.00	33.26
ATOM	248	N	LYS	A	46	71.829	38.604	118.842	1.00	31.74
ATOM	249	CA	LYS	A	46	71.461	38.254	120.193	1.00	31.44
ATOM	250	CB	LYS	A	46	72.650	38.548	121.111	1.00	33.55
ATOM	251	CG	LYS	A	46	72.550	37.959	122.516	1.00	37.58
ATOM	252	CD	LYS	A	46	73.931	37.596	123.067	1.00	37.72
ATOM	253	CE	LYS	A	46	73.862	37.059	124.488	1.00	36.84
ATOM	254	NZ	LYS	A	46	73.418	38.106	125.450	1.00	39.04
ATOM	255	C	LYS	A	46	70.200	38.959	120.691	1.00	32.17
ATOM	256	O	LYS	A	46	69.531	38.468	121.609	1.00	33.32
ATOM	257	N	SER	A	47	69.848	40.096	120.095	1.00	31.91
ATOM	258	CA	SER	A	47	68.649	40.804	120.550	1.00	30.89
ATOM	259	CB	SER	A	47	68.814	42.333	120.404	1.00	29.98
ATOM	260	OG	SER	A	47	68.697	42.795	119.066	1.00	28.59
ATOM	261	C	SER	A	47	67.374	40.335	119.853	1.00	29.76
ATOM	262	O	SER	A	47	66.293	40.863	120.108	1.00	28.86
ATOM	263	N	ASP	A	48	67.504	39.338	118.978	1.00	29.77
ATOM	264	CA	ASP	A	48	66.350	38.781	118.262	1.00	30.47
ATOM	265	CB	ASP	A	48	66.751	37.543	117.459	1.00	28.93
ATOM	266	CG	ASP	A	48	65.691	37.127	116.459	1.00	30.60
ATOM	267	OD1	ASP	A	48	65.627	37.727	115.366	1.00	32.23
ATOM	268	OD2	ASP	A	48	64.913	36.202	116.759	1.00	30.50
ATOM	269	C	ASP	A	48	65.287	38.383	119.277	1.00	31.67
ATOM	270	O	ASP	A	48	65.582	37.714	120.279	1.00	33.65
ATOM	271	N	PRO	A	49	64.032	38.779	119.028	1.00	30.74
ATOM	272	CD	PRO	A	49	63.576	39.618	117.907	1.00	28.94
ATOM	273	CA	PRO	A	49	62.923	38.467	119.933	1.00	30.97
ATOM	274	CB	PRO	A	49	61.787	39.340	119.387	1.00	28.99

ATOM	275	CG	PRO	A	49	62.086	39.416	117.952	1.00	28.31
ATOM	276	C	PRO	A	49	62.530	36.990	120.069	1.00	30.63
ATOM	277	O	PRO	A	49	62.015	36.565	121.106	1.00	30.71
ATOM	278	N	HIS	A	50	62.815	36.208	119.043	1.00	30.61
ATOM	279	CA	HIS	A	50	62.433	34.811	119.044	1.00	31.64
ATOM	280	CB	HIS	A	50	61.790	34.502	117.704	1.00	32.65
ATOM	281	CG	HIS	A	50	60.935	35.616	117.201	1.00	35.28
ATOM	282	CD2	HIS	A	50	61.070	36.428	116.126	1.00	34.75
ATOM	283	ND1	HIS	A	50	59.822	36.060	117.883	1.00	36.16
ATOM	284	CE1	HIS	A	50	59.311	37.101	117.251	1.00	36.04
ATOM	285	NE2	HIS	A	50	60.050	37.345	116.182	1.00	35.40
ATOM	286	C	HIS	A	50	63.527	33.800	119.330	1.00	32.15
ATOM	287	O	HIS	A	50	63.411	32.636	118.922	1.00	33.26
ATOM	288	N	ILE	A	51	64.593	34.209	120.008	1.00	30.57
ATOM	289	CA	ILE	A	51	65.611	33.217	120.283	1.00	30.02
ATOM	290	CB	ILE	A	51	66.984	33.631	119.775	1.00	26.66
ATOM	291	CG2	ILE	A	51	67.006	33.469	118.276	1.00	22.82
ATOM	292	CG1	ILE	A	51	67.340	35.032	120.263	1.00	26.24
ATOM	293	CD1	ILE	A	51	68.817	35.345	120.095	1.00	24.74
ATOM	294	C	ILE	A	51	65.698	32.758	121.729	1.00	31.15
ATOM	295	O	ILE	A	51	66.518	31.894	122.050	1.00	33.30
ATOM	296	N	LYS	A	52	64.846	33.303	122.594	1.00	29.85
ATOM	297	CA	LYS	A	52	64.839	32.860	123.979	1.00	30.59
ATOM	298	CB	LYS	A	52	64.263	33.937	124.893	1.00	30.72
ATOM	299	CG	LYS	A	52	65.254	35.054	125.151	1.00	30.18
ATOM	300	CD	LYS	A	52	64.722	36.068	126.127	1.00	31.56
ATOM	301	CE	LYS	A	52	65.679	37.234	126.251	1.00	32.74
ATOM	302	NZ	LYS	A	52	65.133	38.319	127.108	1.00	35.64
ATOM	303	C	LYS	A	52	64.040	31.558	124.074	1.00	30.27
ATOM	304	O	LYS	A	52	62.833	31.522	123.817	1.00	30.12
ATOM	305	N	LEU	A	53	64.748	30.490	124.433	1.00	29.82
ATOM	306	CA	LEU	A	53	64.178	29.153	124.547	1.00	28.57
ATOM	307	CB	LEU	A	53	65.069	28.163	123.810	1.00	26.87
ATOM	308	CG	LEU	A	53	65.440	28.616	122.403	1.00	25.04
ATOM	309	CD1	LEU	A	53	66.496	27.717	121.801	1.00	26.29
ATOM	310	CD2	LEU	A	53	64.198	28.609	121.561	1.00	28.71
ATOM	311	C	LEU	A	53	64.026	28.696	125.987	1.00	28.76
ATOM	312	O	LEU	A	53	64.776	29.105	126.870	1.00	29.48
ATOM	313	N	GLN	A	54	63.028	27.856	126.221	1.00	30.22
ATOM	314	CA	GLN	A	54	62.786	27.314	127.558	1.00	29.52
ATOM	315	CB	GLN	A	54	61.370	27.617	128.041	1.00	28.20
ATOM	316	CG	GLN	A	54	61.152	27.291	129.505	1.00	30.47
ATOM	317	CD	GLN	A	54	61.887	28.243	130.440	1.00	30.27
ATOM	318	OE1	GLN	A	54	61.775	29.461	130.312	1.00	31.93
ATOM	319	NE2	GLN	A	54	62.627	27.690	131.392	1.00	29.64
ATOM	320	C	GLN	A	54	62.974	25.814	127.444	1.00	28.34
ATOM	321	O	GLN	A	54	62.132	25.106	126.884	1.00	28.87
ATOM	322	N	LEU	A	55	64.111	25.352	127.940	1.00	26.92
ATOM	323	CA	LEU	A	55	64.449	23.948	127.910	1.00	26.23
ATOM	324	CB	LEU	A	55	65.972	23.784	127.983	1.00	24.83
ATOM	325	CG	LEU	A	55	66.905	24.355	126.903	1.00	24.23
ATOM	326	CD1	LEU	A	55	66.962	23.433	125.713	1.00	24.55
ATOM	327	CD2	LEU	A	55	66.438	25.731	126.480	1.00	26.63
ATOM	328	C	LEU	A	55	63.796	23.322	129.136	1.00	27.06
ATOM	329	O	LEU	A	55	64.004	23.768	130.272	1.00	26.61

Table 1

ATOM	330	N	GLN	A	56	62.984	22.304	128.898	1.00	27.30
ATOM	331	CA	GLN	A	56	62.312	21.606	129.981	1.00	28.34
ATOM	332	CB	GLN	A	56	60.798	21.788	129.867	1.00	26.66
ATOM	333	CG	GLN	A	56	60.030	21.033	130.907	1.00	23.34
ATOM	334	CD	GLN	A	56	60.538	21.321	132.299	1.00	28.68
ATOM	335	OE1	GLN	A	56	60.418	22.451	132.802	1.00	29.89
ATOM	336	NE2	GLN	A	56	61.115	20.302	132.941	1.00	26.31
ATOM	337	C	GLN	A	56	62.678	20.126	129.906	1.00	28.99
ATOM	338	O	GLN	A	56	62.699	19.535	128.825	1.00	29.17
ATOM	339	N	ALA	A	57	62.994	19.533	131.050	1.00	30.52
ATOM	340	CA	ALA	A	57	63.354	18.118	131.072	1.00	31.59
ATOM	341	CB	ALA	A	57	64.322	17.828	132.237	1.00	31.98
ATOM	342	C	ALA	A	57	62.085	17.299	131.228	1.00	30.88
ATOM	343	O	ALA	A	57	61.226	17.638	132.045	1.00	30.25
ATOM	344	N	GLU	A	58	61.956	16.241	130.436	1.00	31.07
ATOM	345	CA	GLU	A	58	60.786	15.385	130.543	1.00	34.30
ATOM	346	CB	GLU	A	58	60.338	14.907	129.160	1.00	35.65
ATOM	347	CG	GLU	A	58	58.793	14.838	128.986	1.00	36.64
ATOM	348	CD	GLU	A	58	58.041	16.071	129.527	1.00	36.53
ATOM	349	OE1	GLU	A	58	58.538	17.214	129.363	1.00	38.32
ATOM	350	OE2	GLU	A	58	56.941	15.894	130.104	1.00	33.99
ATOM	351	C	GLU	A	58	61.201	14.213	131.425	1.00	35.52
ATOM	352	O	GLU	A	58	60.381	13.576	132.082	1.00	35.87
ATOM	353	N	GLU	A	59	62.506	13.977	131.456	1.00	36.68
ATOM	354	CA	GLU	A	59	63.106	12.922	132.246	1.00	36.67
ATOM	355	CB	GLU	A	59	62.691	11.558	131.694	1.00	38.47
ATOM	356	CG	GLU	A	59	63.287	11.241	130.343	1.00	42.93
ATOM	357	CD	GLU	A	59	63.214	9.760	130.001	1.00	46.79
ATOM	358	OE1	GLU	A	59	62.144	9.292	129.544	1.00	47.48
ATOM	359	OE2	GLU	A	59	64.239	9.063	130.198	1.00	47.84
ATOM	360	C	GLU	A	59	64.619	13.108	132.116	1.00	35.99
ATOM	361	O	GLU	A	59	65.068	13.938	131.332	1.00	35.86
ATOM	362	N	ARG	A	60	65.402	12.338	132.866	1.00	35.25
ATOM	363	CA	ARG	A	60	66.855	12.454	132.801	1.00	34.39
ATOM	364	CB	ARG	A	60	67.536	11.325	133.589	1.00	35.43
ATOM	365	CG	ARG	A	60	67.711	11.638	135.064	1.00	38.14
ATOM	366	CD	ARG	A	60	68.487	10.568	135.787	1.00	40.57
ATOM	367	NE	ARG	A	60	69.811	10.376	135.207	1.00	44.90
ATOM	368	CZ	ARG	A	60	70.789	9.688	135.790	1.00	45.49
ATOM	369	NH1	ARG	A	60	70.583	9.129	136.973	1.00	46.54
ATOM	370	NH2	ARG	A	60	71.971	9.562	135.195	1.00	46.25
ATOM	371	C	ARG	A	60	67.392	12.459	131.380	1.00	32.51
ATOM	372	O	ARG	A	60	67.131	11.541	130.600	1.00	29.35
ATOM	373	N	GLY	A	61	68.132	13.516	131.058	1.00	30.50
ATOM	374	CA	GLY	A	61	68.734	13.635	129.744	1.00	30.56
ATOM	375	C	GLY	A	61	67.821	13.868	128.554	1.00	30.06
ATOM	376	O	GLY	A	61	68.264	13.731	127.406	1.00	30.72
ATOM	377	N	VAL	A	62	66.564	14.223	128.810	1.00	28.30
ATOM	378	CA	VAL	A	62	65.613	14.470	127.734	1.00	27.79
ATOM	379	CB	VAL	A	62	64.547	13.347	127.641	1.00	28.76
ATOM	380	CG1	VAL	A	62	63.525	13.703	126.571	1.00	28.93
ATOM	381	CG2	VAL	A	62	65.208	12.008	127.327	1.00	25.92
ATOM	382	C	VAL	A	62	64.897	15.799	127.937	1.00	28.19
ATOM	383	O	VAL	A	62	64.305	16.045	128.995	1.00	27.55
ATOM	384	N	VAL	A	63	64.941	16.651	126.915	1.00	27.67

Table 1

ATOM	385	CA	VAL	A	63	64.292	17.952	127.006	1.00	27.32
ATOM	386	CB	VAL	A	63	65.318	19.109	127.120	1.00	26.53
ATOM	387	CG1	VAL	A	63	66.211	18.918	128.330	1.00	25.20
ATOM	388	CG2	VAL	A	63	66.127	19.201	125.840	1.00	23.28
ATOM	389	C	VAL	A	63	63.417	18.284	125.803	1.00	29.19
ATOM	390	O	VAL	A	63	63.595	17.740	124.698	1.00	30.04
ATOM	391	N	SER	A	64	62.469	19.184	126.043	1.00	27.23
ATOM	392	CA	SER	A	64	61.593	19.690	125.008	1.00	28.22
ATOM	393	CB	SER	A	64	60.119	19.691	125.449	1.00	30.07
ATOM	394	OG	SER	A	64	59.827	20.752	126.355	1.00	32.47
ATOM	395	C	SER	A	64	62.116	21.116	124.934	1.00	28.93
ATOM	396	O	SER	A	64	62.448	21.714	125.968	1.00	29.38
ATOM	397	N	ILE	A	65	62.221	21.650	123.722	1.00	28.04
ATOM	398	CA	ILE	A	65	62.718	22.999	123.529	1.00	27.05
ATOM	399	CB	ILE	A	65	63.789	23.005	122.422	1.00	26.59
ATOM	400	CG2	ILE	A	65	64.172	24.434	122.035	1.00	24.34
ATOM	401	CG1	ILE	A	65	64.998	22.213	122.910	1.00	24.17
ATOM	402	CD1	ILE	A	65	65.874	21.698	121.799	1.00	26.19
ATOM	403	C	ILE	A	65	61.540	23.872	123.144	1.00	27.68
ATOM	404	O	ILE	A	65	60.977	23.715	122.066	1.00	28.09
ATOM	405	N	LYS	A	66	61.153	24.778	124.032	1.00	27.82
ATOM	406	CA	LYS	A	66	60.020	25.648	123.742	1.00	27.41
ATOM	407	CB	LYS	A	66	59.025	25.629	124.905	1.00	29.28
ATOM	408	CG	LYS	A	66	57.662	26.227	124.565	1.00	30.44
ATOM	409	CD	LYS	A	66	56.898	26.687	125.814	1.00	30.89
ATOM	410	CE	LYS	A	66	55.535	27.276	125.439	1.00	33.17
ATOM	411	NZ	LYS	A	66	54.860	28.001	126.561	1.00	34.75
ATOM	412	C	LYS	A	66	60.415	27.086	123.450	1.00	26.21
ATOM	413	O	LYS	A	66	61.122	27.723	124.234	1.00	25.68
ATOM	414	N	GLY	A	67	59.962	27.591	122.309	1.00	27.07
ATOM	415	CA	GLY	A	67	60.246	28.970	121.953	1.00	27.99
ATOM	416	C	GLY	A	67	59.338	29.858	122.792	1.00	26.28
ATOM	417	O	GLY	A	67	58.128	29.844	122.622	1.00	24.02
ATOM	418	N	VAL	A	68	59.918	30.622	123.706	1.00	26.60
ATOM	419	CA	VAL	A	68	59.129	31.475	124.574	1.00	27.61
ATOM	420	CB	VAL	A	68	60.010	32.232	125.527	1.00	25.66
ATOM	421	CG1	VAL	A	68	59.169	33.214	126.326	1.00	22.69
ATOM	422	CG2	VAL	A	68	60.733	31.253	126.420	1.00	24.49
ATOM	423	C	VAL	A	68	58.259	32.491	123.856	1.00	31.12
ATOM	424	O	VAL	A	68	57.100	32.682	124.210	1.00	32.65
ATOM	425	N	SER	A	69	58.821	33.164	122.861	1.00	34.30
ATOM	426	CA	SER	A	69	58.068	34.159	122.111	1.00	34.47
ATOM	427	CB	SER	A	69	59.011	34.932	121.190	1.00	33.89
ATOM	428	OG	SER	A	69	58.374	36.059	120.617	1.00	31.52
ATOM	429	C	SER	A	69	56.989	33.475	121.282	1.00	34.11
ATOM	430	O	SER	A	69	55.817	33.794	121.388	1.00	34.65
ATOM	431	N	ALA	A	70	57.397	32.520	120.463	1.00	34.71
ATOM	432	CA	ALA	A	70	56.459	31.809	119.603	1.00	38.14
ATOM	433	CB	ALA	A	70	57.228	31.060	118.527	1.00	37.34
ATOM	434	C	ALA	A	70	55.508	30.844	120.322	1.00	39.12
ATOM	435	O	ALA	A	70	54.511	30.405	119.747	1.00	39.71
ATOM	436	N	ASN	A	71	55.811	30.520	121.573	1.00	39.27
ATOM	437	CA	ASN	A	71	54.986	29.584	122.320	1.00	39.70
ATOM	438	CB	ASN	A	71	53.626	30.212	122.640	1.00	40.65
ATOM	439	CG	ASN	A	71	52.815	29.386	123.638	1.00	41.06

Table 1

ATOM	440	OD1	ASN	A	71	52.788	29.684	124.835	1.00	41.08
ATOM	441	ND2	ASN	A	71	52.158	28.334	123.145	1.00	41.61
ATOM	442	C	ASN	A	71	54.786	28.295	121.497	1.00	39.74
ATOM	443	O	ASN	A	71	53.667	27.806	121.356	1.00	40.01
ATOM	444	N	ARG	A	72	55.874	27.766	120.940	1.00	38.92
ATOM	445	CA	ARG	A	72	55.837	26.534	120.155	1.00	37.82
ATOM	446	CB	ARG	A	72	55.961	26.813	118.652	1.00	38.60
ATOM	447	CG	ARG	A	72	54.771	27.458	117.997	1.00	40.39
ATOM	448	CD	ARG	A	72	55.025	27.683	116.503	1.00	41.15
ATOM	449	NE	ARG	A	72	53.873	28.320	115.866	1.00	43.72
ATOM	450	CZ	ARG	A	72	52.870	27.668	115.279	1.00	43.26
ATOM	451	NH1	ARG	A	72	52.865	26.342	115.221	1.00	43.91
ATOM	452	NH2	ARG	A	72	51.844	28.349	114.782	1.00	42.43
ATOM	453	C	ARG	A	72	57.008	25.655	120.576	1.00	36.80
ATOM	454	O	ARG	A	72	58.002	26.149	121.096	1.00	35.83
ATOM	455	N	TYR	A	73	56.888	24.358	120.310	1.00	36.24
ATOM	456	CA	TYR	A	73	57.904	23.383	120.666	1.00	34.68
ATOM	457	CB	TYR	A	73	57.241	22.193	121.365	1.00	34.67
ATOM	458	CG	TYR	A	73	56.510	22.600	122.634	1.00	37.17
ATOM	459	CD1	TYR	A	73	55.248	23.208	122.586	1.00	35.65
ATOM	460	CE1	TYR	A	73	54.625	23.675	123.752	1.00	33.81
ATOM	461	CD2	TYR	A	73	57.123	22.463	123.888	1.00	37.73
ATOM	462	CE2	TYR	A	73	56.505	22.928	125.054	1.00	34.97
ATOM	463	CZ	TYR	A	73	55.264	23.530	124.974	1.00	33.93
ATOM	464	OH	TYR	A	73	54.684	23.988	126.125	1.00	31.81
ATOM	465	C	TYR	A	73	58.680	22.904	119.460	1.00	35.98
ATOM	466	O	TYR	A	73	58.093	22.516	118.453	1.00	36.90
ATOM	467	N	LEU	A	74	60.006	22.941	119.558	1.00	36.36
ATOM	468	CA	LEU	A	74	60.869	22.495	118.471	1.00	36.15
ATOM	469	CB	LEU	A	74	62.340	22.635	118.868	1.00	35.84
ATOM	470	CG	LEU	A	74	63.337	21.933	117.941	1.00	35.61
ATOM	471	CD1	LEU	A	74	63.478	22.738	116.675	1.00	37.88
ATOM	472	CD2	LEU	A	74	64.689	21.791	118.601	1.00	35.93
ATOM	473	C	LEU	A	74	60.571	21.029	118.192	1.00	37.21
ATOM	474	O	LEU	A	74	60.536	20.219	119.119	1.00	38.28
ATOM	475	N	ALA	A	75	60.361	20.685	116.926	1.00	37.24
ATOM	476	CA	ALA	A	75	60.076	19.310	116.572	1.00	36.32
ATOM	477	CB	ALA	A	75	58.599	19.140	116.354	1.00	34.38
ATOM	478	C	ALA	A	75	60.849	18.841	115.347	1.00	38.35
ATOM	479	O	ALA	A	75	61.073	19.591	114.398	1.00	39.59
ATOM	480	N	MET	A	76	61.262	17.583	115.398	1.00	41.23
ATOM	481	CA	MET	A	76	62.005	16.928	114.337	1.00	43.91
ATOM	482	CB	MET	A	76	63.081	16.043	114.955	1.00	43.17
ATOM	483	CG	MET	A	76	63.893	15.252	113.964	1.00	42.26
ATOM	484	SD	MET	A	76	65.172	16.245	113.248	1.00	44.57
ATOM	485	CE	MET	A	76	66.636	15.543	113.985	1.00	40.99
ATOM	486	C	MET	A	76	60.983	16.058	113.614	1.00	47.78
ATOM	487	O	MET	A	76	60.247	15.306	114.256	1.00	47.85
ATOM	488	N	LYS	A	77	60.941	16.151	112.289	1.00	51.17
ATOM	489	CA	LYS	A	77	59.989	15.376	111.506	1.00	53.40
ATOM	490	CB	LYS	A	77	59.462	16.230	110.359	1.00	55.29
ATOM	491	CG	LYS	A	77	59.035	17.633	110.791	1.00	57.32
ATOM	492	CD	LYS	A	77	57.874	17.601	111.772	1.00	59.11
ATOM	493	CE	LYS	A	77	56.622	17.010	111.129	1.00	60.34
ATOM	494	NZ	LYS	A	77	55.421	17.122	112.010	1.00	60.76

Table 7

ATOM	495	C	LYS	A	77	60.644	14.114	110.975	1.00	54.55
ATOM	496	O	LYS	A	77	61.869	14.008	110.949	1.00	54.47
ATOM	497	N	GLU	A	78	59.818	13.165	110.548	1.00	56.34
ATOM	498	CA	GLU	A	78	60.299	11.888	110.038	1.00	58.33
ATOM	499	CB	GLU	A	78	59.135	11.094	109.470	1.00	60.98
ATOM	500	CG	GLU	A	78	58.563	11.682	108.209	1.00	65.49
ATOM	501	CD	GLU	A	78	57.240	11.052	107.846	1.00	69.33
ATOM	502	OE1	GLU	A	78	57.134	9.804	107.922	1.00	70.62
ATOM	503	OE2	GLU	A	78	56.308	11.805	107.484	1.00	71.91
ATOM	504	C	GLU	A	78	61.397	12.002	108.987	1.00	57.93
ATOM	505	O	GLU	A	78	62.294	11.163	108.933	1.00	57.53
ATOM	506	N	ASP	A	79	61.328	13.036	108.154	1.00	57.03
ATOM	507	CA	ASP	A	79	62.324	13.234	107.102	1.00	56.19
ATOM	508	CB	ASP	A	79	61.695	13.958	105.914	1.00	54.79
ATOM	509	CG	ASP	A	79	61.251	15.353	106.264	1.00	54.84
ATOM	510	OD1	ASP	A	79	60.626	16.013	105.406	1.00	55.03
ATOM	511	OD2	ASP	A	79	61.531	15.788	107.400	1.00	54.33
ATOM	512	C	ASP	A	79	63.527	14.032	107.599	1.00	55.83
ATOM	513	O	ASP	A	79	64.516	14.210	106.876	1.00	56.39
ATOM	514	N	GLY	A	80	63.430	14.528	108.827	1.00	53.82
ATOM	515	CA	GLY	A	80	64.532	15.283	109.388	1.00	51.60
ATOM	516	C	GLY	A	80	64.448	16.794	109.282	1.00	49.35
ATOM	517	O	GLY	A	80	65.457	17.483	109.428	1.00	48.60
ATOM	518	N	ARG	A	81	63.263	17.328	109.023	1.00	47.11
ATOM	519	CA	ARG	A	81	63.142	18.772	108.942	1.00	45.50
ATOM	520	CB	ARG	A	81	62.191	19.185	107.814	1.00	46.15
ATOM	521	CG	ARG	A	81	60.754	18.770	108.012	1.00	47.86
ATOM	522	CD	ARG	A	81	59.879	19.203	106.845	1.00	48.98
ATOM	523	NE	ARG	A	81	58.461	18.940	107.100	1.00	50.64
ATOM	524	CZ	ARG	A	81	57.931	17.726	107.253	1.00	51.67
ATOM	525	NH1	ARG	A	81	58.696	16.635	107.176	1.00	50.89
ATOM	526	NH2	ARG	A	81	56.631	17.597	107.492	1.00	51.50
ATOM	527	C	ARG	A	81	62.649	19.296	110.283	1.00	44.44
ATOM	528	O	ARG	A	81	61.926	18.614	111.001	1.00	43.89
ATOM	529	N	LEU	A	82	63.052	20.510	110.629	1.00	43.77
ATOM	530	CA	LEU	A	82	62.641	21.096	111.897	1.00	42.44
ATOM	531	CB	LEU	A	82	63.772	21.908	112.533	1.00	43.49
ATOM	532	CG	LEU	A	82	65.163	21.304	112.660	1.00	44.62
ATOM	533	CD1	LEU	A	82	66.064	22.291	113.388	1.00	44.86
ATOM	534	CD2	LEU	A	82	65.080	19.985	113.408	1.00	46.49
ATOM	535	C	LEU	A	82	61.466	22.025	111.717	1.00	41.65
ATOM	536	O	LEU	A	82	61.255	22.585	110.643	1.00	42.91
ATOM	537	N	LEU	A	83	60.709	22.189	112.791	1.00	40.18
ATOM	538	CA	LEU	A	83	59.565	23.083	112.812	1.00	39.02
ATOM	539	CB	LEU	A	83	58.405	22.518	111.987	1.00	36.36
ATOM	540	CG	LEU	A	83	57.635	21.274	112.448	1.00	34.63
ATOM	541	CD1	LEU	A	83	56.792	21.559	113.671	1.00	31.47
ATOM	542	CD2	LEU	A	83	56.746	20.832	111.313	1.00	34.37
ATOM	543	C	LEU	A	83	59.177	23.194	114.273	1.00	40.14
ATOM	544	O	LEU	A	83	59.630	22.403	115.095	1.00	38.27
ATOM	545	N	ALA	A	84	58.351	24.176	114.604	1.00	41.60
ATOM	546	CA	ALA	A	84	57.934	24.344	115.986	1.00	43.32
ATOM	547	CB	ALA	A	84	58.311	25.730	116.490	1.00	41.67
ATOM	548	C	ALA	A	84	56.438	24.112	116.114	1.00	45.19
ATOM	549	O	ALA	A	84	55.623	24.927	115.677	1.00	46.57

Table 1

ATOM	550	N	SER	A	85	56.096	22.981	116.721	1.00	46.92
ATOM	551	CA	SER	A	85	54.714	22.561	116.938	1.00	47.45
ATOM	552	CB	SER	A	85	54.703	21.115	117.450	1.00	47.39
ATOM	553	OG	SER	A	85	53.386	20.674	117.709	1.00	49.88
ATOM	554	C	SER	A	85	53.983	23.465	117.928	1.00	48.14
ATOM	555	O	SER	A	85	54.601	24.078	118.799	1.00	49.09
ATOM	556	N	LYS	A	86	52.664	23.547	117.793	1.00	47.71
ATOM	557	CA	LYS	A	86	51.878	24.385	118.684	1.00	47.45
ATOM	558	CB	LYS	A	86	50.490	24.614	118.095	1.00	49.56
ATOM	559	CG	LYS	A	86	49.813	25.891	118.567	1.00	51.27
ATOM	560	CD	LYS	A	86	50.287	27.073	117.740	1.00	53.09
ATOM	561	CE	LYS	A	86	49.472	28.321	118.005	1.00	53.92
ATOM	562	NZ	LYS	A	86	49.716	29.341	116.934	1.00	57.90
ATOM	563	C	LYS	A	86	51.752	23.692	120.033	1.00	46.65
ATOM	564	O	LYS	A	86	51.873	24.319	121.086	1.00	46.47
ATOM	565	N	SER	A	87	51.496	22.389	119.986	1.00	45.59
ATOM	566	CA	SER	A	87	51.351	21.587	121.194	1.00	44.66
ATOM	567	CB	SER	A	87	49.939	20.992	121.282	1.00	43.08
ATOM	568	OG	SER	A	87	49.701	20.091	120.221	1.00	40.33
ATOM	569	C	SER	A	87	52.391	20.474	121.144	1.00	44.59
ATOM	570	O	SER	A	87	52.881	20.111	120.074	1.00	43.61
ATOM	571	N	VAL	A	88	52.718	19.926	122.306	1.00	44.63
ATOM	572	CA	VAL	A	88	53.729	18.883	122.374	1.00	43.82
ATOM	573	CB	VAL	A	88	54.187	18.656	123.824	1.00	43.24
ATOM	574	CG1	VAL	A	88	55.408	17.749	123.837	1.00	42.87
ATOM	575	CG2	VAL	A	88	54.495	19.995	124.490	1.00	41.50
ATOM	576	C	VAL	A	88	53.314	17.542	121.782	1.00	43.66
ATOM	577	O	VAL	A	88	52.230	17.028	122.066	1.00	44.12
ATOM	578	N	THR	A	89	54.182	16.991	120.938	1.00	43.04
ATOM	579	CA	THR	A	89	53.950	15.683	120.337	1.00	42.15
ATOM	580	CB	THR	A	89	53.761	15.750	118.798	1.00	43.10
ATOM	581	OG1	THR	A	89	55.033	15.794	118.144	1.00	46.42
ATOM	582	CG2	THR	A	89	52.976	16.988	118.422	1.00	43.70
ATOM	583	C	THR	A	89	55.183	14.862	120.706	1.00	41.22
ATOM	584	O	THR	A	89	56.020	15.320	121.480	1.00	40.52
ATOM	585	N	ASP	A	90	55.311	13.657	120.172	1.00	41.76
ATOM	586	CA	ASP	A	90	56.447	12.821	120.545	1.00	42.49
ATOM	587	CB	ASP	A	90	56.095	11.340	120.379	1.00	43.14
ATOM	588	CG	ASP	A	90	56.112	10.893	118.925	1.00	45.82
ATOM	589	OD1	ASP	A	90	55.470	11.559	118.084	1.00	45.52
ATOM	590	OD2	ASP	A	90	56.769	9.869	118.625	1.00	47.64
ATOM	591	C	ASP	A	90	57.727	13.143	119.785	1.00	42.84
ATOM	592	O	ASP	A	90	58.759	12.495	119.989	1.00	43.34
ATOM	593	N	GLU	A	91	57.664	14.148	118.915	1.00	42.08
ATOM	594	CA	GLU	A	91	58.825	14.557	118.127	1.00	39.76
ATOM	595	CB	GLU	A	91	58.409	14.855	116.681	1.00	39.16
ATOM	596	CG	GLU	A	91	58.045	13.608	115.869	1.00	39.61
ATOM	597	CD	GLU	A	91	57.290	13.940	114.595	1.00	39.92
ATOM	598	OE1	GLU	A	91	56.277	14.666	114.694	1.00	40.67
ATOM	599	OE2	GLU	A	91	57.696	13.475	113.505	1.00	37.43
ATOM	600	C	GLU	A	91	59.435	15.794	118.756	1.00	37.44
ATOM	601	O	GLU	A	91	60.395	16.354	118.241	1.00	35.98
ATOM	602	N	CYS	A	92	58.878	16.201	119.887	1.00	35.82
ATOM	603	CA	CYS	A	92	59.355	17.386	120.581	1.00	36.58
ATOM	604	CB	CYS	A	92	58.161	18.157	121.138	1.00	38.16

Table 1

ATOM	605	SG	CYS	A	92	57.052	18.772	119.863	1.00	43.78
ATOM	606	C	CYS	A	92	60.363	17.110	121.703	1.00	35.32
ATOM	607	O	CYS	A	92	60.642	17.990	122.530	1.00	33.99
ATOM	608	N	PHE	A	93	60.926	15.902	121.716	1.00	33.77
ATOM	609	CA	PHE	A	93	61.886	15.526	122.750	1.00	31.34
ATOM	610	CB	PHE	A	93	61.323	14.349	123.541	1.00	27.27
ATOM	611	CG	PHE	A	93	60.019	14.670	124.211	1.00	24.63
ATOM	612	CD1	PHE	A	93	59.981	15.537	125.297	1.00	23.64
ATOM	613	CD2	PHE	A	93	58.819	14.185	123.703	1.00	24.13
ATOM	614	CE1	PHE	A	93	58.766	15.924	125.864	1.00	22.52
ATOM	615	CE2	PHE	A	93	57.598	14.571	124.268	1.00	23.86
ATOM	616	CZ	PHE	A	93	57.576	15.442	125.351	1.00	21.53
ATOM	617	C	PHE	A	93	63.261	15.218	122.184	1.00	31.25
ATOM	618	O	PHE	A	93	63.389	14.592	121.132	1.00	31.43
ATOM	619	N	PHE	A	94	64.290	15.679	122.889	1.00	31.24
ATOM	620	CA	PHE	A	94	65.663	15.489	122.445	1.00	30.43
ATOM	621	CB	PHE	A	94	66.181	16.789	121.821	1.00	30.29
ATOM	622	CG	PHE	A	94	65.320	17.309	120.701	1.00	29.49
ATOM	623	CD1	PHE	A	94	65.534	16.892	119.386	1.00	28.03
ATOM	624	CD2	PHE	A	94	64.265	18.182	120.967	1.00	27.75
ATOM	625	CE1	PHE	A	94	64.707	17.333	118.363	1.00	26.35
ATOM	626	CE2	PHE	A	94	63.434	18.625	119.947	1.00	25.73
ATOM	627	CZ	PHE	A	94	63.653	18.204	118.649	1.00	25.48
ATOM	628	C	PHE	A	94	66.584	15.089	123.582	1.00	30.16
ATOM	629	O	PHE	A	94	66.328	15.407	124.748	1.00	30.02
ATOM	630	N	PHE	A	95	67.657	14.393	123.225	1.00	29.48
ATOM	631	CA	PHE	A	95	68.658	13.968	124.186	1.00	29.03
ATOM	632	CB	PHE	A	95	69.362	12.721	123.668	1.00	31.70
ATOM	633	CG	PHE	A	95	68.469	11.523	123.582	1.00	34.61
ATOM	634	CD1	PHE	A	95	68.600	10.618	122.533	1.00	36.23
ATOM	635	CD2	PHE	A	95	67.497	11.291	124.553	1.00	36.09
ATOM	636	CE1	PHE	A	95	67.776	9.492	122.447	1.00	35.87
ATOM	637	CE2	PHE	A	95	66.665	10.170	124.480	1.00	36.33
ATOM	638	CZ	PHE	A	95	66.807	9.269	123.421	1.00	36.80
ATOM	639	C	PHE	A	95	69.659	15.099	124.365	1.00	28.52
ATOM	640	O	PHE	A	95	70.512	15.339	123.502	1.00	27.18
ATOM	641	N	GLU	A	96	69.533	15.819	125.474	1.00	28.65
ATOM	642	CA	GLU	A	96	70.448	16.910	125.744	1.00	29.50
ATOM	643	CB	GLU	A	96	69.858	17.889	126.756	1.00	27.99
ATOM	644	CG	GLU	A	96	70.801	19.042	127.058	1.00	29.21
ATOM	645	CD	GLU	A	96	70.265	20.005	128.098	1.00	31.55
ATOM	646	OE1	GLU	A	96	70.020	19.575	129.250	1.00	31.32
ATOM	647	OE2	GLU	A	96	70.097	21.198	127.767	1.00	33.49
ATOM	648	C	GLU	A	96	71.707	16.280	126.311	1.00	31.72
ATOM	649	O	GLU	A	96	71.683	15.666	127.384	1.00	34.11
ATOM	650	N	ARG	A	97	72.803	16.404	125.578	1.00	31.74
ATOM	651	CA	ARG	A	97	74.056	15.835	126.034	1.00	31.84
ATOM	652	CB	ARG	A	97	74.425	14.637	125.176	1.00	34.27
ATOM	653	CG	ARG	A	97	75.761	14.043	125.540	1.00	38.54
ATOM	654	CD	ARG	A	97	76.319	13.201	124.417	1.00	42.56
ATOM	655	NE	ARG	A	97	77.711	12.881	124.699	1.00	49.50
ATOM	656	CZ	ARG	A	97	78.102	11.907	125.513	1.00	52.72
ATOM	657	NH1	ARG	A	97	77.191	11.143	126.114	1.00	52.62
ATOM	658	NH2	ARG	A	97	79.400	11.722	125.756	1.00	51.89
ATOM	659	C	ARG	A	97	75.198	16.838	125.995	1.00	30.59

Table 1

ATOM	660	O	ARG	A	97	75.453	17.463	124.969	1.00	32.34
ATOM	661	N	LEU	A	98	75.872	16.999	127.126	1.00	28.50
ATOM	662	CA	LEU	A	98	77.019	17.884	127.221	1.00	27.17
ATOM	663	CB	LEU	A	98	77.184	18.371	128.661	1.00	21.92
ATOM	664	CG	LEU	A	98	78.523	18.977	129.071	1.00	20.39
ATOM	665	CD1	LEU	A	98	78.988	19.998	128.063	1.00	21.52
ATOM	666	CD2	LEU	A	98	78.376	19.607	130.430	1.00	21.24
ATOM	667	C	LEU	A	98	78.242	17.063	126.777	1.00	28.93
ATOM	668	O	LEU	A	98	78.787	16.276	127.546	1.00	31.40
ATOM	669	N	GLU	A	99	78.652	17.240	125.524	1.00	30.17
ATOM	670	CA	GLU	A	99	79.785	16.515	124.951	1.00	31.19
ATOM	671	CB	GLU	A	99	79.948	16.876	123.476	1.00	29.56
ATOM	672	CG	GLU	A	99	78.693	16.717	122.678	1.00	31.83
ATOM	673	CD	GLU	A	99	78.207	15.291	122.655	1.00	33.86
ATOM	674	OE1	GLU	A	99	77.101	15.036	122.129	1.00	32.15
ATOM	675	OE2	GLU	A	99	78.943	14.422	123.161	1.00	37.73
ATOM	676	C	GLU	A	99	81.098	16.808	125.661	1.00	33.20
ATOM	677	O	GLU	A	99	81.194	17.747	126.467	1.00	32.11
ATOM	678	N	SER	A	100	82.119	16.020	125.323	1.00	34.00
ATOM	679	CA	SER	A	100	83.432	16.186	125.930	1.00	36.02
ATOM	680	CB	SER	A	100	84.331	14.982	125.628	1.00	37.15
ATOM	681	OG	SER	A	100	84.846	15.048	124.312	1.00	42.19
ATOM	682	C	SER	A	100	84.142	17.468	125.502	1.00	35.51
ATOM	683	O	SER	A	100	85.099	17.882	126.151	1.00	36.82
ATOM	684	N	ASN	A	101	83.690	18.104	124.425	1.00	35.15
ATOM	685	CA	ASN	A	101	84.338	19.343	123.984	1.00	33.34
ATOM	686	CB	ASN	A	101	84.212	19.521	122.475	1.00	35.00
ATOM	687	CG	ASN	A	101	82.782	19.684	122.040	1.00	37.73
ATOM	688	OD1	ASN	A	101	81.895	19.882	122.873	1.00	39.82
ATOM	689	ND2	ASN	A	101	82.541	19.609	120.736	1.00	39.52
ATOM	690	C	ASN	A	101	83.721	20.546	124.677	1.00	30.87
ATOM	691	O	ASN	A	101	84.142	21.669	124.448	1.00	29.80
ATOM	692	N	ASN	A	102	82.722	20.287	125.521	1.00	30.67
ATOM	693	CA	ASN	A	102	81.991	21.309	126.286	1.00	29.39
ATOM	694	CB	ASN	A	102	82.929	22.348	126.914	1.00	31.37
ATOM	695	CG	ASN	A	102	83.496	21.900	128.257	1.00	33.09
ATOM	696	OD1	ASN	A	102	83.095	20.871	128.810	1.00	33.67
ATOM	697	ND2	ASN	A	102	84.429	22.683	128.789	1.00	32.79
ATOM	698	C	ASN	A	102	80.911	22.031	125.508	1.00	27.39
ATOM	699	O	ASN	A	102	80.558	23.164	125.818	1.00	26.13
ATOM	700	N	TYR	A	103	80.389	21.354	124.500	1.00	26.24
ATOM	701	CA	TYR	A	103	79.314	21.879	123.697	1.00	26.55
ATOM	702	CB	TYR	A	103	79.766	21.964	122.244	1.00	29.17
ATOM	703	CG	TYR	A	103	80.580	23.210	121.940	1.00	30.57
ATOM	704	CD1	TYR	A	103	79.959	24.456	121.824	1.00	30.73
ATOM	705	CE1	TYR	A	103	80.692	25.600	121.576	1.00	30.98
ATOM	706	CD2	TYR	A	103	81.968	23.151	121.797	1.00	29.10
ATOM	707	CE2	TYR	A	103	82.713	24.300	121.551	1.00	28.71
ATOM	708	CZ	TYR	A	103	82.068	25.518	121.441	1.00	31.03
ATOM	709	OH	TYR	A	103	82.785	26.665	121.192	1.00	33.17
ATOM	710	C	TYR	A	103	78.150	20.904	123.883	1.00	26.39
ATOM	711	O	TYR	A	103	78.359	19.738	124.203	1.00	25.31
ATOM	712	N	ASN	A	104	76.926	21.394	123.729	1.00	26.69
ATOM	713	CA	ASN	A	104	75.738	20.565	123.893	1.00	25.29
ATOM	714	CB	ASN	A	104	74.596	21.367	124.536	1.00	25.30

Table 1

ATOM	715	CG	ASN	A	104	74.775	21.582	126.038	1.00	25.81
ATOM	716	OD1	ASN	A	104	75.896	21.637	126.545	1.00	26.52
ATOM	717	ND2	ASN	A	104	73.658	21.728	126.750	1.00	24.06
ATOM	718	C	ASN	A	104	75.267	20.094	122.534	1.00	25.53
ATOM	719	O	ASN	A	104	75.528	20.734	121.521	1.00	24.70
ATOM	720	N	THR	A	105	74.580	18.960	122.523	1.00	26.46
ATOM	721	CA	THR	A	105	74.005	18.429	121.299	1.00	27.72
ATOM	722	CB	THR	A	105	74.758	17.240	120.765	1.00	28.31
ATOM	723	OG1	THR	A	105	74.707	16.185	121.730	1.00	30.41
ATOM	724	CG2	THR	A	105	76.187	17.630	120.464	1.00	29.27
ATOM	725	C	THR	A	105	72.597	17.975	121.621	1.00	27.86
ATOM	726	O	THR	A	105	72.337	17.441	122.703	1.00	26.82
ATOM	727	N	TYR	A	106	71.691	18.189	120.675	1.00	27.97
ATOM	728	CA	TYR	A	106	70.309	17.808	120.869	1.00	28.05
ATOM	729	CB	TYR	A	106	69.443	19.054	120.819	1.00	25.08
ATOM	730	CG	TYR	A	106	69.764	19.973	121.966	1.00	23.18
ATOM	731	CD1	TYR	A	106	68.973	19.987	123.118	1.00	21.13
ATOM	732	CE1	TYR	A	106	69.297	20.791	124.205	1.00	20.58
ATOM	733	CD2	TYR	A	106	70.894	20.790	121.928	1.00	20.43
ATOM	734	CE2	TYR	A	106	71.229	21.591	123.004	1.00	21.60
ATOM	735	CZ	TYR	A	106	70.431	21.591	124.147	1.00	21.86
ATOM	736	OH	TYR	A	106	70.798	22.368	125.234	1.00	22.45
ATOM	737	C	TYR	A	106	69.893	16.784	119.838	1.00	30.08
ATOM	738	O	TYR	A	106	69.630	17.105	118.676	1.00	30.82
ATOM	739	N	ARG	A	107	69.841	15.538	120.292	1.00	31.66
ATOM	740	CA	ARG	A	107	69.503	14.405	119.447	1.00	32.61
ATOM	741	CB	ARG	A	107	70.392	13.220	119.842	1.00	32.36
ATOM	742	CG	ARG	A	107	70.434	12.064	118.872	1.00	32.70
ATOM	743	CD	ARG	A	107	71.697	11.253	119.117	1.00	34.85
ATOM	744	NE	ARG	A	107	71.800	10.744	120.491	1.00	36.65
ATOM	745	CZ	ARG	A	107	71.106	9.708	120.963	1.00	35.72
ATOM	746	NH1	ARG	A	107	70.258	9.071	120.169	1.00	36.28
ATOM	747	NH2	ARG	A	107	71.259	9.301	122.218	1.00	32.47
ATOM	748	C	ARG	A	107	68.039	14.040	119.589	1.00	33.19
ATOM	749	O	ARG	A	107	67.524	13.930	120.700	1.00	34.18
ATOM	750	N	SER	A	108	67.375	13.858	118.453	1.00	34.58
ATOM	751	CA	SER	A	108	65.966	13.477	118.416	1.00	36.35
ATOM	752	CB	SER	A	108	65.511	13.306	116.960	1.00	37.24
ATOM	753	OG	SER	A	108	64.124	13.019	116.878	1.00	39.38
ATOM	754	C	SER	A	108	65.735	12.162	119.160	1.00	37.63
ATOM	755	O	SER	A	108	66.339	11.134	118.837	1.00	35.70
ATOM	756	N	ARG	A	109	64.851	12.189	120.148	1.00	40.12
ATOM	757	CA	ARG	A	109	64.557	10.984	120.905	1.00	42.97
ATOM	758	CB	ARG	A	109	63.705	11.321	122.139	1.00	46.15
ATOM	759	CG	ARG	A	109	63.406	10.117	123.032	1.00	49.94
ATOM	760	CD	ARG	A	109	62.781	10.490	124.386	1.00	53.41
ATOM	761	NE	ARG	A	109	61.383	10.928	124.305	1.00	56.68
ATOM	762	CZ	ARG	A	109	60.598	11.121	125.367	1.00	57.49
ATOM	763	NH1	ARG	A	109	61.066	10.914	126.594	1.00	58.10
ATOM	764	NH2	ARG	A	109	59.345	11.526	125.210	1.00	57.66
ATOM	765	C	ARG	A	109	63.810	10.009	120.006	1.00	43.50
ATOM	766	O	ARG	A	109	63.879	8.800	120.204	1.00	43.69
ATOM	767	N	LYS	A	110	63.112	10.541	119.007	1.00	44.03
ATOM	768	CA	LYS	A	110	62.349	9.706	118.097	1.00	44.44
ATOM	769	CB	LYS	A	110	61.105	10.457	117.627	1.00	45.66

Table 7

ATOM	770	CG	LYS	A	110	60.215	9.607	116.755	1.00	47.20
ATOM	771	CD	LYS	A	110	58.823	10.168	116.618	1.00	49.29
ATOM	772	CE	LYS	A	110	57.912	9.130	115.962	1.00	50.25
ATOM	773	NZ	LYS	A	110	56.508	9.603	115.819	1.00	51.01
ATOM	774	C	LYS	A	110	63.150	9.222	116.893	1.00	46.02
ATOM	775	O	LYS	A	110	63.013	8.068	116.477	1.00	47.58
ATOM	776	N	TYR	A	111	63.974	10.099	116.324	1.00	46.38
ATOM	777	CA	TYR	A	111	64.807	9.743	115.172	1.00	46.60
ATOM	778	CB	TYR	A	111	64.630	10.778	114.061	1.00	46.06
ATOM	779	CG	TYR	A	111	63.177	11.000	113.702	1.00	45.65
ATOM	780	CD1	TYR	A	111	62.432	9.998	113.081	1.00	46.57
ATOM	781	CE1	TYR	A	111	61.069	10.160	112.823	1.00	44.89
ATOM	782	CD2	TYR	A	111	62.523	12.183	114.052	1.00	45.29
ATOM	783	CE2	TYR	A	111	61.164	12.357	113.801	1.00	45.59
ATOM	784	CZ	TYR	A	111	60.444	11.338	113.188	1.00	45.93
ATOM	785	OH	TYR	A	111	59.100	11.493	112.952	1.00	45.61
ATOM	786	C	TYR	A	111	66.248	9.721	115.666	1.00	47.88
ATOM	787	O	TYR	A	111	67.111	10.437	115.162	1.00	49.06
ATOM	788	N	THR	A	112	66.462	8.879	116.674	1.00	48.36
ATOM	789	CA	THR	A	112	67.730	8.672	117.373	1.00	48.90
ATOM	790	CB	THR	A	112	67.812	7.236	117.871	1.00	49.47
ATOM	791	OG1	THR	A	112	67.705	6.338	116.757	1.00	51.22
ATOM	792	CG2	THR	A	112	66.698	6.968	118.851	1.00	49.93
ATOM	793	C	THR	A	112	69.081	8.987	116.732	1.00	48.64
ATOM	794	O	THR	A	112	70.041	9.265	117.452	1.00	48.37
ATOM	795	N	SER	A	113	69.183	8.932	115.408	1.00	47.78
ATOM	796	CA	SER	A	113	70.465	9.207	114.759	1.00	47.11
ATOM	797	CB	SER	A	113	70.764	8.116	113.710	1.00	48.27
ATOM	798	OG	SER	A	113	69.752	8.012	112.716	1.00	49.10
ATOM	799	C	SER	A	113	70.606	10.606	114.122	1.00	46.61
ATOM	800	O	SER	A	113	71.570	10.866	113.388	1.00	46.29
ATOM	801	N	TRP	A	114	69.666	11.505	114.418	1.00	44.06
ATOM	802	CA	TRP	A	114	69.687	12.849	113.856	1.00	41.41
ATOM	803	CB	TRP	A	114	68.442	13.091	113.015	1.00	41.01
ATOM	804	CG	TRP	A	114	68.258	12.140	111.889	1.00	40.42
ATOM	805	CD2	TRP	A	114	67.052	11.918	111.155	1.00	38.46
ATOM	806	CE2	TRP	A	114	67.359	11.016	110.108	1.00	38.51
ATOM	807	CE3	TRP	A	114	65.744	12.398	111.276	1.00	37.09
ATOM	808	CD1	TRP	A	114	69.221	11.380	111.284	1.00	41.23
ATOM	809	NE1	TRP	A	114	68.689	10.704	110.212	1.00	40.74
ATOM	810	CZ2	TRP	A	114	66.405	10.586	109.184	1.00	35.23
ATOM	811	CZ3	TRP	A	114	64.793	11.972	110.357	1.00	37.18
ATOM	812	CH2	TRP	A	114	65.133	11.074	109.322	1.00	37.14
ATOM	813	C	TRP	A	114	69.732	13.918	114.923	1.00	41.41
ATOM	814	O	TRP	A	114	69.090	13.778	115.963	1.00	41.05
ATOM	815	N	TYR	A	115	70.462	14.999	114.635	1.00	41.08
ATOM	816	CA	TYR	A	115	70.618	16.136	115.548	1.00	39.88
ATOM	817	CB	TYR	A	115	72.096	16.472	115.766	1.00	41.04
ATOM	818	CG	TYR	A	115	72.945	15.383	116.345	1.00	43.89
ATOM	819	CD1	TYR	A	115	73.605	14.478	115.523	1.00	43.91
ATOM	820	CE1	TYR	A	115	74.394	13.474	116.058	1.00	45.80
ATOM	821	CD2	TYR	A	115	73.092	15.258	117.726	1.00	45.48
ATOM	822	CE2	TYR	A	115	73.870	14.258	118.273	1.00	45.73
ATOM	823	CZ	TYR	A	115	74.519	13.367	117.438	1.00	46.36
ATOM	824	OH	TYR	A	115	75.277	12.356	117.992	1.00	47.60

Table 1

ATOM	825	C	TYR	A	115	69.989	17.445	115.073	1.00	38.37
ATOM	826	O	TYR	A	115	69.880	17.706	113.876	1.00	37.51
ATOM	827	N	VAL	A	116	69.598	18.276	116.031	1.00	36.40
ATOM	828	CA	VAL	A	116	69.099	19.603	115.730	1.00	35.41
ATOM	829	CB	VAL	A	116	68.590	20.297	117.010	1.00	32.19
ATOM	830	CG1	VAL	A	116	68.369	21.759	116.754	1.00	32.30
ATOM	831	CG2	VAL	A	116	67.313	19.662	117.480	1.00	32.27
ATOM	832	C	VAL	A	116	70.416	20.279	115.297	1.00	37.32
ATOM	833	O	VAL	A	116	71.411	20.209	116.024	1.00	39.26
ATOM	834	N	ALA	A	117	70.453	20.912	114.129	1.00	37.44
ATOM	835	CA	ALA	A	117	71.697	21.547	113.677	1.00	37.22
ATOM	836	CB	ALA	A	117	72.604	20.510	113.015	1.00	34.89
ATOM	837	C	ALA	A	117	71.454	22.702	112.717	1.00	37.59
ATOM	838	O	ALA	A	117	70.430	22.747	112.042	1.00	41.05
ATOM	839	N	LEU	A	118	72.398	23.636	112.652	1.00	35.93
ATOM	840	CA	LEU	A	118	72.264	24.780	111.760	1.00	33.55
ATOM	841	CB	LEU	A	118	72.152	26.065	112.587	1.00	29.51
ATOM	842	CG	LEU	A	118	70.944	26.105	113.531	1.00	27.36
ATOM	843	CD1	LEU	A	118	70.899	27.395	114.344	1.00	25.77
ATOM	844	CD2	LEU	A	118	69.692	25.969	112.710	1.00	25.54
ATOM	845	C	LEU	A	118	73.436	24.869	110.772	1.00	35.22
ATOM	846	O	LEU	A	118	74.592	24.611	111.125	1.00	33.57
ATOM	847	N	LYS	A	119	73.130	25.217	109.523	1.00	37.24
ATOM	848	CA	LYS	A	119	74.162	25.347	108.493	1.00	36.59
ATOM	849	CB	LYS	A	119	73.560	25.312	107.092	1.00	33.96
ATOM	850	CG	LYS	A	119	72.815	24.064	106.692	1.00	29.96
ATOM	851	CD	LYS	A	119	71.942	24.425	105.511	1.00	29.66
ATOM	852	CE	LYS	A	119	71.331	23.224	104.833	1.00	33.54
ATOM	853	NZ	LYS	A	119	71.921	22.954	103.486	1.00	35.42
ATOM	854	C	LYS	A	119	74.902	26.677	108.653	1.00	39.10
ATOM	855	O	LYS	A	119	74.431	27.604	109.332	1.00	36.63
ATOM	856	N	ARG	A	120	76.061	26.758	108.001	1.00	42.69
ATOM	857	CA	ARG	A	120	76.912	27.947	108.038	1.00	44.11
ATOM	858	CB	ARG	A	120	78.206	27.696	107.225	1.00	47.39
ATOM	859	CG	ARG	A	120	78.957	26.401	107.626	1.00	53.28
ATOM	860	CD	ARG	A	120	80.288	26.112	106.862	1.00	56.82
ATOM	861	NE	ARG	A	120	81.424	26.933	107.312	1.00	60.63
ATOM	862	CZ	ARG	A	120	82.712	26.621	107.140	1.00	60.35
ATOM	863	NH1	ARG	A	120	83.051	25.494	106.528	1.00	60.36
ATOM	864	NH2	ARG	A	120	83.668	27.439	107.578	1.00	60.20
ATOM	865	C	ARG	A	120	76.141	29.148	107.471	1.00	43.14
ATOM	866	O	ARG	A	120	76.507	30.300	107.708	1.00	41.07
ATOM	867	N	THR	A	121	75.059	28.858	106.746	1.00	42.80
ATOM	868	CA	THR	A	121	74.216	29.876	106.117	1.00	41.17
ATOM	869	CB	THR	A	121	73.562	29.337	104.811	1.00	40.10
ATOM	870	OG1	THR	A	121	72.603	28.317	105.123	1.00	38.39
ATOM	871	CG2	THR	A	121	74.617	28.758	103.894	1.00	38.65
ATOM	872	C	THR	A	121	73.100	30.417	107.012	1.00	41.97
ATOM	873	O	THR	A	121	72.415	31.370	106.648	1.00	42.59
ATOM	874	N	GLY	A	122	72.906	29.809	108.175	1.00	42.85
ATOM	875	CA	GLY	A	122	71.861	30.279	109.063	1.00	43.14
ATOM	876	C	GLY	A	122	70.534	29.559	108.903	1.00	42.89
ATOM	877	O	GLY	A	122	69.504	30.038	109.370	1.00	42.66
ATOM	878	N	GLN	A	123	70.541	28.411	108.240	1.00	43.13
ATOM	879	CA	GLN	A	123	69.310	27.651	108.068	1.00	44.40

Table 1

ATOM	880	CB	GLN	A	123	68.999	27.460	106.593	1.00	43.97
ATOM	881	CG	GLN	A	123	68.606	28.738	105.924	1.00	45.73
ATOM	882	CD	GLN	A	123	68.358	28.550	104.461	1.00	47.36
ATOM	883	OE1	GLN	A	123	69.230	28.059	103.730	1.00	49.61
ATOM	884	NE2	GLN	A	123	67.171	28.939	104.008	1.00	45.86
ATOM	885	C	GLN	A	123	69.459	26.304	108.736	1.00	43.81
ATOM	886	O	GLN	A	123	70.562	25.758	108.791	1.00	43.65
ATOM	887	N	TYR	A	124	68.360	25.759	109.249	1.00	42.36
ATOM	888	CA	TYR	A	124	68.477	24.473	109.905	1.00	42.34
ATOM	889	CB	TYR	A	124	67.150	24.034	110.549	1.00	42.89
ATOM	890	CG	TYR	A	124	66.061	23.552	109.619	1.00	43.69
ATOM	891	CD1	TYR	A	124	66.216	22.388	108.869	1.00	45.57
ATOM	892	CE1	TYR	A	124	65.180	21.905	108.060	1.00	46.18
ATOM	893	CD2	TYR	A	124	64.845	24.230	109.538	1.00	44.59
ATOM	894	CE2	TYR	A	124	63.805	23.759	108.741	1.00	45.52
ATOM	895	CZ	TYR	A	124	63.977	22.596	108.005	1.00	46.26
ATOM	896	OH	TYR	A	124	62.943	22.123	107.231	1.00	46.93
ATOM	897	C	TYR	A	124	68.973	23.433	108.917	1.00	41.35
ATOM	898	O	TYR	A	124	68.729	23.530	107.718	1.00	41.57
ATOM	899	N	LYS	A	125	69.701	22.455	109.436	1.00	40.46
ATOM	900	CA	LYS	A	125	70.243	21.372	108.637	1.00	39.14
ATOM	901	CB	LYS	A	125	71.682	21.087	109.051	1.00	39.11
ATOM	902	CG	LYS	A	125	72.407	20.091	108.190	1.00	37.48
ATOM	903	CD	LYS	A	125	73.887	20.151	108.518	1.00	37.19
ATOM	904	CE	LYS	A	125	74.688	19.209	107.642	1.00	38.30
ATOM	905	NZ	LYS	A	125	76.163	19.376	107.821	1.00	40.09
ATOM	906	C	LYS	A	125	69.377	20.149	108.884	1.00	38.94
ATOM	907	O	LYS	A	125	69.009	19.841	110.028	1.00	37.71
ATOM	908	N	LEU	A	126	69.046	19.463	107.799	1.00	38.64
ATOM	909	CA	LEU	A	126	68.210	18.281	107.871	1.00	38.50
ATOM	910	CB	LEU	A	126	67.949	17.740	106.470	1.00	38.60
ATOM	911	CG	LEU	A	126	66.789	18.378	105.716	1.00	38.62
ATOM	912	CD1	LEU	A	126	66.711	17.759	104.329	1.00	38.87
ATOM	913	CD2	LEU	A	126	65.484	18.156	106.484	1.00	37.99
ATOM	914	C	LEU	A	126	68.817	17.191	108.723	1.00	38.32
ATOM	915	O	LEU	A	126	70.006	16.895	108.603	1.00	37.82
ATOM	916	N	GLY	A	127	67.989	16.599	109.581	1.00	38.45
ATOM	917	CA	GLY	A	127	68.449	15.530	110.445	1.00	39.64
ATOM	918	C	GLY	A	127	69.158	14.482	109.616	1.00	40.85
ATOM	919	O	GLY	A	127	70.275	14.067	109.930	1.00	42.00
ATOM	920	N	SER	A	128	68.513	14.063	108.535	1.00	41.54
ATOM	921	CA	SER	A	128	69.084	13.064	107.641	1.00	42.63
ATOM	922	CB	SER	A	128	68.188	12.916	106.404	1.00	43.01
ATOM	923	OG	SER	A	128	67.359	14.059	106.223	1.00	43.58
ATOM	924	C	SER	A	128	70.524	13.379	107.203	1.00	44.28
ATOM	925	O	SER	A	128	71.232	12.515	106.685	1.00	44.87
ATOM	926	N	LYS	A	129	70.966	14.612	107.423	1.00	45.93
ATOM	927	CA	LYS	A	129	72.307	15.013	107.017	1.00	45.44
ATOM	928	CB	LYS	A	129	72.228	16.234	106.083	1.00	46.85
ATOM	929	CG	LYS	A	129	71.242	16.098	104.909	1.00	51.95
ATOM	930	CD	LYS	A	129	71.502	17.129	103.783	1.00	55.26
ATOM	931	CE	LYS	A	129	71.325	18.594	104.254	1.00	60.79
ATOM	932	NZ	LYS	A	129	71.878	19.660	103.325	1.00	61.01
ATOM	933	C	LYS	A	129	73.250	15.336	108.175	1.00	44.17
ATOM	934	O	LYS	A	129	74.367	15.774	107.945	1.00	43.85

Table 1

ATOM	935	N	THR	A	130	72.828	15.123	109.414	1.00	42.92
ATOM	936	CA	THR	A	130	73.709	15.457	110.525	1.00	42.43
ATOM	937	CB	THR	A	130	72.934	16.133	111.682	1.00	41.22
ATOM	938	OG1	THR	A	130	71.931	15.243	112.194	1.00	39.15
ATOM	939	CG2	THR	A	130	72.282	17.408	111.197	1.00	38.70
ATOM	940	C	THR	A	130	74.506	14.280	111.073	1.00	44.22
ATOM	941	O	THR	A	130	74.024	13.147	111.127	1.00	44.98
ATOM	942	N	GLY	A	131	75.739	14.567	111.474	1.00	44.70
ATOM	943	CA	GLY	A	131	76.608	13.541	112.018	1.00	45.33
ATOM	944	C	GLY	A	131	77.376	14.055	113.222	1.00	46.80
ATOM	945	O	GLY	A	131	77.409	15.265	113.471	1.00	47.55
ATOM	946	N	PRO	A	132	78.016	13.159	113.985	1.00	46.38
ATOM	947	CD	PRO	A	132	78.213	11.755	113.589	1.00	47.25
ATOM	948	CA	PRO	A	132	78.808	13.457	115.182	1.00	45.69
ATOM	949	CB	PRO	A	132	79.259	12.079	115.622	1.00	47.47
ATOM	950	CG	PRO	A	132	79.497	11.407	114.305	1.00	46.80
ATOM	951	C	PRO	A	132	80.013	14.370	114.926	1.00	44.62
ATOM	952	O	PRO	A	132	80.330	15.253	115.731	1.00	45.57
ATOM	953	N	GLY	A	133	80.698	14.140	113.815	1.00	42.56
ATOM	954	CA	GLY	A	133	81.850	14.960	113.508	1.00	41.60
ATOM	955	C	GLY	A	133	81.486	16.319	112.938	1.00	41.19
ATOM	956	O	GLY	A	133	82.339	17.023	112.411	1.00	40.45
ATOM	957	N	GLN	A	134	80.223	16.707	113.053	1.00	41.05
ATOM	958	CA	GLN	A	134	79.784	17.986	112.507	1.00	41.03
ATOM	959	CB	GLN	A	134	78.422	17.820	111.858	1.00	42.60
ATOM	960	CG	GLN	A	134	78.439	17.045	110.575	1.00	42.17
ATOM	961	CD	GLN	A	134	77.077	17.019	109.953	1.00	41.64
ATOM	962	OE1	GLN	A	134	76.335	18.001	110.035	1.00	42.15
ATOM	963	NE2	GLN	A	134	76.733	15.905	109.319	1.00	41.49
ATOM	964	C	GLN	A	134	79.726	19.180	113.460	1.00	40.14
ATOM	965	O	GLN	A	134	79.214	19.090	114.577	1.00	39.81
ATOM	966	N	LYS	A	135	80.233	20.308	112.972	1.00	38.91
ATOM	967	CA	LYS	A	135	80.278	21.562	113.715	1.00	36.79
ATOM	968	CB	LYS	A	135	81.217	22.521	112.985	1.00	36.65
ATOM	969	CG	LYS	A	135	81.505	23.848	113.651	1.00	38.80
ATOM	970	CD	LYS	A	135	82.711	24.479	112.939	1.00	41.93
ATOM	971	CE	LYS	A	135	82.735	26.008	113.003	1.00	44.55
ATOM	972	NZ	LYS	A	135	83.581	26.607	111.908	1.00	44.29
ATOM	973	C	LYS	A	135	78.876	22.155	113.831	1.00	35.29
ATOM	974	O	LYS	A	135	78.604	22.978	114.705	1.00	34.18
ATOM	975	N	ALA	A	136	77.981	21.705	112.958	1.00	34.66
ATOM	976	CA	ALA	A	136	76.610	22.191	112.942	1.00	33.50
ATOM	977	CB	ALA	A	136	75.951	21.816	111.623	1.00	32.41
ATOM	978	C	ALA	A	136	75.763	21.687	114.109	1.00	33.64
ATOM	979	O	ALA	A	136	74.823	22.366	114.533	1.00	33.54
ATOM	980	N	ILE	A	137	76.091	20.510	114.637	1.00	32.69
ATOM	981	CA	ILE	A	137	75.317	19.942	115.739	1.00	32.18
ATOM	982	CB	ILE	A	137	75.445	18.405	115.815	1.00	32.98
ATOM	983	CG2	ILE	A	137	74.871	17.773	114.554	1.00	33.96
ATOM	984	CG1	ILE	A	137	76.908	18.011	116.079	1.00	32.14
ATOM	985	CD1	ILE	A	137	77.141	16.506	116.268	1.00	29.78
ATOM	986	C	ILE	A	137	75.693	20.448	117.111	1.00	32.80
ATOM	987	O	ILE	A	137	75.029	20.112	118.098	1.00	34.26
ATOM	988	N	LEU	A	138	76.753	21.244	117.186	1.00	32.26
ATOM	989	CA	LEU	A	138	77.213	21.743	118.476	1.00	31.34

Table 1

ATOM	990	CB	LEU	A	138	78.746	21.780	118.491	1.00	30.49
ATOM	991	CG	LEU	A	138	79.371	20.440	118.088	1.00	30.42
ATOM	992	CD1	LEU	A	138	80.876	20.550	118.071	1.00	31.69
ATOM	993	CD2	LEU	A	138	78.944	19.352	119.061	1.00	32.51
ATOM	994	C	LEU	A	138	76.640	23.104	118.862	1.00	30.99
ATOM	995	O	LEU	A	138	76.717	24.068	118.099	1.00	30.94
ATOM	996	N	PHE	A	139	76.061	23.166	120.058	1.00	30.10
ATOM	997	CA	PHE	A	139	75.479	24.397	120.573	1.00	29.61
ATOM	998	CB	PHE	A	139	73.959	24.294	120.685	1.00	29.86
ATOM	999	CG	PHE	A	139	73.291	23.992	119.402	1.00	30.42
ATOM	1000	CD1	PHE	A	139	73.283	22.695	118.905	1.00	31.20
ATOM	1001	CD2	PHE	A	139	72.712	25.009	118.659	1.00	31.75
ATOM	1002	CE1	PHE	A	139	72.709	22.407	117.681	1.00	32.46
ATOM	1003	CE2	PHE	A	139	72.133	24.739	117.427	1.00	33.50
ATOM	1004	CZ	PHE	A	139	72.132	23.430	116.934	1.00	33.41
ATOM	1005	C	PHE	A	139	76.021	24.709	121.946	1.00	29.99
ATOM	1006	O	PHE	A	139	76.456	23.822	122.678	1.00	29.92
ATOM	1007	N	LEU	A	140	75.978	25.987	122.293	1.00	29.55
ATOM	1008	CA	LEU	A	140	76.443	26.436	123.580	1.00	28.07
ATOM	1009	CB	LEU	A	140	77.649	27.357	123.415	1.00	25.38
ATOM	1010	CG	LEU	A	140	78.343	27.762	124.719	1.00	26.90
ATOM	1011	CD1	LEU	A	140	79.389	26.707	125.117	1.00	23.01
ATOM	1012	CD2	LEU	A	140	78.991	29.120	124.523	1.00	26.49
ATOM	1013	C	LEU	A	140	75.280	27.175	124.244	1.00	30.30
ATOM	1014	O	LEU	A	140	74.763	28.169	123.714	1.00	30.33
ATOM	1015	N	PRO	A	141	74.830	26.678	125.407	1.00	30.93
ATOM	1016	CD	PRO	A	141	75.130	25.361	125.992	1.00	29.93
ATOM	1017	CA	PRO	A	141	73.720	27.320	126.116	1.00	30.37
ATOM	1018	CB	PRO	A	141	73.354	26.292	127.188	1.00	29.43
ATOM	1019	CG	PRO	A	141	73.803	24.997	126.597	1.00	30.39
ATOM	1020	C	PRO	A	141	74.160	28.644	126.720	1.00	29.99
ATOM	1021	O	PRO	A	141	75.263	28.755	127.230	1.00	29.80
ATOM	1022	N	MET	A	142	73.296	29.645	126.654	1.00	31.55
ATOM	1023	CA	MET	A	142	73.605	30.949	127.215	1.00	33.42
ATOM	1024	CB	MET	A	142	74.054	31.913	126.121	1.00	34.28
ATOM	1025	CG	MET	A	142	75.418	31.603	125.534	1.00	35.59
ATOM	1026	SD	MET	A	142	75.795	32.644	124.108	1.00	36.91
ATOM	1027	CE	MET	A	142	76.070	34.233	124.865	1.00	37.00
ATOM	1028	C	MET	A	142	72.380	31.496	127.933	1.00	35.30
ATOM	1029	O	MET	A	142	71.343	31.769	127.325	1.00	33.50
ATOM	1030	N	SER	A	143	72.518	31.639	129.244	1.00	38.45
ATOM	1031	CA	SER	A	143	71.449	32.134	130.092	1.00	41.94
ATOM	1032	CB	SER	A	143	71.935	32.262	131.545	1.00	43.82
ATOM	1033	OG	SER	A	143	73.020	33.175	131.668	1.00	46.24
ATOM	1034	C	SER	A	143	70.892	33.462	129.605	1.00	43.77
ATOM	1035	O	SER	A	143	71.627	34.330	129.133	1.00	44.56
ATOM	1036	N	ALA	A	144	69.578	33.601	129.731	1.00	45.87
ATOM	1037	CA	ALA	A	144	68.872	34.797	129.304	1.00	47.92
ATOM	1038	CB	ALA	A	144	68.241	34.556	127.941	1.00	46.91
ATOM	1039	C	ALA	A	144	67.796	35.151	130.327	1.00	49.42
ATOM	1040	O	ALA	A	144	67.606	36.366	130.560	1.00	50.94
ATOM	1041	CB	HIS	B	16	101.445	8.523	141.693	1.00	53.58
ATOM	1042	CG	HIS	B	16	101.728	8.165	143.119	1.00	58.45
ATOM	1043	CD2	HIS	B	16	101.794	6.964	143.742	1.00	60.61
ATOM	1044	ND1	HIS	B	16	101.993	9.112	144.087	1.00	60.79

Table 1

ATOM	1045	CE1	HIS	B	16	102.207	8.509	145.243	1.00	61.84
ATOM	1046	NE2	HIS	B	16	102.093	7.205	145.061	1.00	62.31
ATOM	1047	C	HIS	B	16	102.083	10.901	141.902	1.00	48.11
ATOM	1048	O	HIS	B	16	103.177	10.845	141.327	1.00	47.34
ATOM	1049	N	HIS	B	16	100.509	10.188	140.098	1.00	46.31
ATOM	1050	CA	HIS	B	16	100.953	9.958	141.508	1.00	49.06
ATOM	1051	N	PHE	B	17	101.816	11.731	142.910	1.00	47.00
ATOM	1052	CA	PHE	B	17	102.763	12.726	143.423	1.00	45.92
ATOM	1053	CB	PHE	B	17	102.107	13.493	144.587	1.00	45.44
ATOM	1054	CG	PHE	B	17	101.954	12.679	145.857	1.00	44.25
ATOM	1055	CD1	PHE	B	17	102.968	12.657	146.815	1.00	43.19
ATOM	1056	CD2	PHE	B	17	100.799	11.928	146.093	1.00	42.90
ATOM	1057	CE1	PHE	B	17	102.833	11.898	147.985	1.00	41.41
ATOM	1058	CE2	PHE	B	17	100.657	11.164	147.263	1.00	40.06
ATOM	1059	CZ	PHE	B	17	101.670	11.150	148.204	1.00	40.32
ATOM	1060	C	PHE	B	17	104.133	12.181	143.869	1.00	45.68
ATOM	1061	O	PHE	B	17	105.147	12.890	143.818	1.00	43.64
ATOM	1062	N	LYS	B	18	104.166	10.927	144.307	1.00	46.37
ATOM	1063	CA	LYS	B	18	105.415	10.325	144.772	1.00	47.59
ATOM	1064	CB	LYS	B	18	105.142	9.028	145.550	1.00	46.13
ATOM	1065	C	LYS	B	18	106.421	10.030	143.658	1.00	47.69
ATOM	1066	O	LYS	B	18	107.636	10.060	143.895	1.00	47.25
ATOM	1067	N	ASP	B	19	105.918	9.752	142.453	1.00	47.51
ATOM	1068	CA	ASP	B	19	106.774	9.416	141.311	1.00	46.25
ATOM	1069	CB	ASP	B	19	105.996	8.597	140.278	1.00	48.23
ATOM	1070	CG	ASP	B	19	105.414	7.315	140.862	1.00	51.06
ATOM	1071	OD1	ASP	B	19	106.151	6.591	141.580	1.00	49.53
ATOM	1072	OD2	ASP	B	19	104.220	7.034	140.592	1.00	50.69
ATOM	1073	C	ASP	B	19	107.375	10.622	140.624	1.00	44.83
ATOM	1074	O	ASP	B	19	106.895	11.745	140.781	1.00	47.81
ATOM	1075	N	PRO	B	20	108.439	10.407	139.838	1.00	42.28
ATOM	1076	CD	PRO	B	20	109.144	9.140	139.612	1.00	41.29
ATOM	1077	CA	PRO	B	20	109.106	11.496	139.124	1.00	39.23
ATOM	1078	CB	PRO	B	20	110.348	10.825	138.540	1.00	40.15
ATOM	1079	CG	PRO	B	20	110.550	9.624	139.424	1.00	41.97
ATOM	1080	C	PRO	B	20	108.204	12.019	138.037	1.00	35.93
ATOM	1081	O	PRO	B	20	107.371	11.291	137.511	1.00	35.62
ATOM	1082	N	LYS	B	21	108.381	13.281	137.695	1.00	34.38
ATOM	1083	CA	LYS	B	21	107.581	13.877	136.656	1.00	33.82
ATOM	1084	CB	LYS	B	21	106.633	14.890	137.290	1.00	32.42
ATOM	1085	CG	LYS	B	21	105.802	14.240	138.382	1.00	35.36
ATOM	1086	CD	LYS	B	21	104.698	15.135	138.905	1.00	38.67
ATOM	1087	CE	LYS	B	21	103.854	14.410	139.947	1.00	39.11
ATOM	1088	NZ	LYS	B	21	102.725	15.254	140.441	1.00	39.48
ATOM	1089	C	LYS	B	21	108.494	14.501	135.607	1.00	33.46
ATOM	1090	O	LYS	B	21	109.656	14.795	135.879	1.00	33.20
ATOM	1091	N	ARG	B	22	107.983	14.645	134.392	1.00	32.18
ATOM	1092	CA	ARG	B	22	108.751	15.249	133.318	1.00	32.62
ATOM	1093	CB	ARG	B	22	108.623	14.423	132.021	1.00	35.35
ATOM	1094	CG	ARG	B	22	109.685	13.336	131.798	1.00	39.07
ATOM	1095	CD	ARG	B	22	109.521	12.639	130.429	1.00	43.42
ATOM	1096	NE	ARG	B	22	108.763	11.383	130.484	1.00	48.74
ATOM	1097	CZ	ARG	B	22	109.266	10.207	130.871	1.00	51.40
ATOM	1098	NH1	ARG	B	22	110.541	10.111	131.240	1.00	53.26
ATOM	1099	NH2	ARG	B	22	108.494	9.121	130.895	1.00	51.66

Table 1

ATOM	1100	C	ARG	B	22	108.111	16.606	133.117	1.00	31.88
ATOM	1101	O	ARG	B	22	106.899	16.699	133.019	1.00	32.34
ATOM	1102	N	LEU	B	23	108.901	17.666	133.068	1.00	31.50
ATOM	1103	CA	LEU	B	23	108.316	18.984	132.849	1.00	30.85
ATOM	1104	CB	LEU	B	23	108.953	19.997	133.809	1.00	29.80
ATOM	1105	CG	LEU	B	23	108.568	19.805	135.282	1.00	30.02
ATOM	1106	CD1	LEU	B	23	109.288	20.822	136.157	1.00	29.71
ATOM	1107	CD2	LEU	B	23	107.062	19.962	135.441	1.00	29.76
ATOM	1108	C	LEU	B	23	108.437	19.441	131.377	1.00	31.55
ATOM	1109	O	LEU	B	23	109.509	19.818	130.898	1.00	31.98
ATOM	1110	N	TYR	B	24	107.318	19.391	130.665	1.00	31.38
ATOM	1111	CA	TYR	B	24	107.257	19.768	129.258	1.00	30.32
ATOM	1112	CB	TYR	B	24	106.202	18.885	128.593	1.00	31.90
ATOM	1113	CG	TYR	B	24	105.930	19.160	127.140	1.00	34.51
ATOM	1114	CD1	TYR	B	24	105.203	20.282	126.741	1.00	33.58
ATOM	1115	CE1	TYR	B	24	104.898	20.489	125.402	1.00	33.99
ATOM	1116	CD2	TYR	B	24	106.351	18.264	126.161	1.00	33.10
ATOM	1117	CE2	TYR	B	24	106.054	18.469	124.828	1.00	31.74
ATOM	1118	CZ	TYR	B	24	105.327	19.572	124.454	1.00	32.06
ATOM	1119	OH	TYR	B	24	105.001	19.738	123.131	1.00	33.37
ATOM	1120	C	TYR	B	24	106.908	21.257	129.135	1.00	29.21
ATOM	1121	O	TYR	B	24	105.830	21.674	129.545	1.00	28.83
ATOM	1122	N	CYS	B	25	107.822	22.053	128.578	1.00	28.00
ATOM	1123	CA	CYS	B	25	107.592	23.492	128.430	1.00	28.66
ATOM	1124	CB	CYS	B	25	108.920	24.246	128.273	1.00	28.41
ATOM	1125	SG	CYS	B	25	108.778	26.080	128.299	1.00	24.31
ATOM	1126	C	CYS	B	25	106.703	23.807	127.238	1.00	30.84
ATOM	1127	O	CYS	B	25	106.941	23.303	126.136	1.00	33.28
ATOM	1128	N	LYS	B	26	105.685	24.644	127.449	1.00	30.59
ATOM	1129	CA	LYS	B	26	104.772	24.993	126.363	1.00	30.75
ATOM	1130	CB	LYS	B	26	103.642	25.911	126.833	1.00	30.15
ATOM	1131	CG	LYS	B	26	102.644	26.241	125.718	1.00	26.13
ATOM	1132	CD	LYS	B	26	101.597	27.212	126.165	1.00	23.86
ATOM	1133	CE	LYS	B	26	100.711	27.617	125.007	1.00	25.53
ATOM	1134	NZ	LYS	B	26	99.854	28.790	125.357	1.00	23.37
ATOM	1135	C	LYS	B	26	105.504	25.696	125.249	1.00	31.19
ATOM	1136	O	LYS	B	26	105.090	25.658	124.099	1.00	32.72
ATOM	1137	N	ASN	B	27	106.605	26.336	125.595	1.00	33.18
ATOM	1138	CA	ASN	B	27	107.368	27.073	124.618	1.00	34.32
ATOM	1139	CB	ASN	B	27	108.038	28.254	125.289	1.00	35.05
ATOM	1140	CG	ASN	B	27	108.694	29.154	124.301	1.00	37.69
ATOM	1141	OD1	ASN	B	27	108.213	29.294	123.179	1.00	40.64
ATOM	1142	ND2	ASN	B	27	109.791	29.789	124.702	1.00	39.91
ATOM	1143	C	ASN	B	27	108.413	26.258	123.871	1.00	36.01
ATOM	1144	O	ASN	B	27	109.604	26.318	124.188	1.00	36.60
ATOM	1145	N	GLY	B	28	107.960	25.497	122.876	1.00	36.54
ATOM	1146	CA	GLY	B	28	108.868	24.701	122.072	1.00	34.89
ATOM	1147	C	GLY	B	28	108.758	23.214	122.278	1.00	35.90
ATOM	1148	O	GLY	B	28	109.283	22.439	121.482	1.00	35.86
ATOM	1149	N	GLY	B	29	108.082	22.809	123.348	1.00	37.35
ATOM	1150	CA	GLY	B	29	107.933	21.392	123.627	1.00	37.23
ATOM	1151	C	GLY	B	29	109.202	20.823	124.223	1.00	37.28
ATOM	1152	O	GLY	B	29	109.479	19.625	124.094	1.00	38.96
ATOM	1153	N	PHE	B	30	109.982	21.694	124.860	1.00	36.18
ATOM	1154	CA	PHE	B	30	111.228	21.291	125.499	1.00	36.03

Table 1

ATOM	1155	CB	PHE	B	30	112.224	22.458	125.569	1.00	35.91
ATOM	1156	CG	PHE	B	30	112.801	22.859	124.243	1.00	36.45
ATOM	1157	CD1	PHE	B	30	112.337	23.996	123.583	1.00	34.88
ATOM	1158	CD2	PHE	B	30	113.799	22.090	123.647	1.00	36.18
ATOM	1159	CE1	PHE	B	30	112.846	24.363	122.353	1.00	34.85
ATOM	1160	CE2	PHE	B	30	114.316	22.447	122.416	1.00	35.27
ATOM	1161	CZ	PHE	B	30	113.837	23.590	121.764	1.00	36.19
ATOM	1162	C	PHE	B	30	110.983	20.811	126.925	1.00	36.21
ATOM	1163	O	PHE	B	30	110.292	21.473	127.707	1.00	36.14
ATOM	1164	N	PHE	B	31	111.555	19.659	127.249	1.00	35.85
ATOM	1165	CA	PHE	B	31	111.469	19.097	128.589	1.00	37.40
ATOM	1166	CB	PHE	B	31	111.618	17.580	128.526	1.00	37.92
ATOM	1167	CG	PHE	B	31	110.402	16.878	128.027	1.00	40.04
ATOM	1168	CD1	PHE	B	31	109.385	16.526	128.901	1.00	41.04
ATOM	1169	CD2	PHE	B	31	110.281	16.543	126.684	1.00	41.32
ATOM	1170	CE1	PHE	B	31	108.260	15.838	128.446	1.00	42.85
ATOM	1171	CE2	PHE	B	31	109.162	15.855	126.212	1.00	42.54
ATOM	1172	CZ	PHE	B	31	108.148	15.500	127.097	1.00	43.55
ATOM	1173	C	PHE	B	31	112.622	19.682	129.420	1.00	37.60
ATOM	1174	O	PHE	B	31	113.771	19.700	128.963	1.00	38.92
ATOM	1175	N	LEU	B	32	112.323	20.163	130.625	1.00	35.55
ATOM	1176	CA	LEU	B	32	113.355	20.716	131.488	1.00	34.17
ATOM	1177	CB	LEU	B	32	112.728	21.197	132.795	1.00	35.16
ATOM	1178	CG	LEU	B	32	113.638	21.861	133.832	1.00	36.30
ATOM	1179	CD1	LEU	B	32	114.192	23.176	133.306	1.00	33.58
ATOM	1180	CD2	LEU	B	32	112.832	22.093	135.097	1.00	36.73
ATOM	1181	C	LEU	B	32	114.384	19.619	131.774	1.00	33.55
ATOM	1182	O	LEU	B	32	114.026	18.501	132.172	1.00	30.47
ATOM	1183	N	ARG	B	33	115.658	19.936	131.556	1.00	32.82
ATOM	1184	CA	ARG	B	33	116.722	18.975	131.792	1.00	32.99
ATOM	1185	CB	ARG	B	33	117.387	18.584	130.483	1.00	32.91
ATOM	1186	CG	ARG	B	33	118.606	17.695	130.699	1.00	34.53
ATOM	1187	CD	ARG	B	33	119.161	17.186	129.381	1.00	34.21
ATOM	1188	NE	ARG	B	33	119.641	18.270	128.530	1.00	32.09
ATOM	1189	CZ	ARG	B	33	120.035	18.101	127.275	1.00	29.40
ATOM	1190	NH1	ARG	B	33	120.002	16.894	126.734	1.00	26.60
ATOM	1191	NH2	ARG	B	33	120.456	19.135	126.563	1.00	26.93
ATOM	1192	C	ARG	B	33	117.802	19.445	132.760	1.00	33.81
ATOM	1193	O	ARG	B	33	118.268	20.589	132.702	1.00	34.83
ATOM	1194	N	ILE	B	34	118.207	18.541	133.645	1.00	33.61
ATOM	1195	CA	ILE	B	34	119.243	18.835	134.624	1.00	34.06
ATOM	1196	CB	ILE	B	34	118.743	18.638	136.050	1.00	31.91
ATOM	1197	CG2	ILE	B	34	119.898	18.733	137.023	1.00	31.52
ATOM	1198	CG1	ILE	B	34	117.676	19.672	136.371	1.00	28.95
ATOM	1199	CD1	ILE	B	34	117.027	19.425	137.693	1.00	28.65
ATOM	1200	C	ILE	B	34	120.408	17.884	134.412	1.00	36.60
ATOM	1201	O	ILE	B	34	120.322	16.702	134.770	1.00	36.08
ATOM	1202	N	HIS	B	35	121.485	18.413	133.828	1.00	38.97
ATOM	1203	CA	HIS	B	35	122.704	17.653	133.548	1.00	40.24
ATOM	1204	CB	HIS	B	35	123.634	18.480	132.656	1.00	42.94
ATOM	1205	CG	HIS	B	35	123.049	18.814	131.322	1.00	47.19
ATOM	1206	CD2	HIS	B	35	122.371	19.906	130.892	1.00	48.47
ATOM	1207	ND1	HIS	B	35	123.109	17.951	130.247	1.00	49.89
ATOM	1208	CE1	HIS	B	35	122.495	18.499	129.212	1.00	50.03
ATOM	1209	NE2	HIS	B	35	122.037	19.684	129.576	1.00	48.17

Table 1

ATOM	1210	C	HIS	B	35	123.436	17.302	134.848	1.00	39.62
ATOM	1211	O	HIS	B	35	123.449	18.093	135.796	1.00	38.77
ATOM	1212	N	PRO	B	36	124.045	16.104	134.912	1.00	39.09
ATOM	1213	CD	PRO	B	36	123.867	14.947	134.014	1.00	39.98
ATOM	1214	CA	PRO	B	36	124.769	15.698	136.117	1.00	38.70
ATOM	1215	CB	PRO	B	36	125.303	14.324	135.746	1.00	37.90
ATOM	1216	CG	PRO	B	36	124.187	13.773	134.938	1.00	38.98
ATOM	1217	C	PRO	B	36	125.870	16.673	136.521	1.00	38.41
ATOM	1218	O	PRO	B	36	126.284	16.687	137.678	1.00	37.55
ATOM	1219	N	ASP	B	37	126.327	17.494	135.575	1.00	38.67
ATOM	1220	CA	ASP	B	37	127.367	18.476	135.866	1.00	39.47
ATOM	1221	CB	ASP	B	37	128.194	18.804	134.620	1.00	41.64
ATOM	1222	CG	ASP	B	37	127.404	19.576	133.574	1.00	44.39
ATOM	1223	OD1	ASP	B	37	126.465	20.313	133.950	1.00	44.40
ATOM	1224	OD2	ASP	B	37	127.734	19.458	132.370	1.00	45.65
ATOM	1225	C	ASP	B	37	126.796	19.783	136.409	1.00	40.37
ATOM	1226	O	ASP	B	37	127.542	20.745	136.601	1.00	41.14
ATOM	1227	N	GLY	B	38	125.482	19.836	136.629	1.00	40.30
ATOM	1228	CA	GLY	B	38	124.875	21.055	137.152	1.00	38.99
ATOM	1229	C	GLY	B	38	124.299	22.029	136.125	1.00	38.03
ATOM	1230	O	GLY	B	38	123.657	23.009	136.501	1.00	36.64
ATOM	1231	N	ARG	B	39	124.525	21.787	134.837	1.00	37.93
ATOM	1232	CA	ARG	B	39	123.969	22.666	133.809	1.00	39.37
ATOM	1233	CB	ARG	B	39	124.578	22.392	132.436	1.00	42.00
ATOM	1234	CG	ARG	B	39	126.018	22.802	132.223	1.00	46.71
ATOM	1235	CD	ARG	B	39	126.459	22.370	130.817	1.00	51.06
ATOM	1236	NE	ARG	B	39	126.320	20.921	130.634	1.00	54.86
ATOM	1237	CZ	ARG	B	39	125.992	20.323	129.487	1.00	56.96
ATOM	1238	NH1	ARG	B	39	125.893	18.996	129.436	1.00	57.35
ATOM	1239	NH2	ARG	B	39	125.751	21.044	128.395	1.00	56.77
ATOM	1240	C	ARG	B	39	122.470	22.413	133.680	1.00	39.42
ATOM	1241	O	ARG	B	39	121.997	21.295	133.899	1.00	38.02
ATOM	1242	N	VAL	B	40	121.733	23.452	133.298	1.00	40.07
ATOM	1243	CA	VAL	B	40	120.284	23.353	133.107	1.00	40.65
ATOM	1244	CB	VAL	B	40	119.526	24.162	134.182	1.00	41.39
ATOM	1245	CG1	VAL	B	40	118.045	24.203	133.862	1.00	41.97
ATOM	1246	CG2	VAL	B	40	119.738	23.525	135.545	1.00	42.94
ATOM	1247	C	VAL	B	40	119.876	23.848	131.713	1.00	40.44
ATOM	1248	O	VAL	B	40	120.300	24.921	131.274	1.00	41.16
ATOM	1249	N	ASP	B	41	119.056	23.064	131.018	1.00	39.94
ATOM	1250	CA	ASP	B	41	118.607	23.430	129.669	1.00	39.12
ATOM	1251	CB	ASP	B	41	119.706	23.118	128.659	1.00	39.83
ATOM	1252	CG	ASP	B	41	119.986	21.622	128.554	1.00	43.38
ATOM	1253	OD1	ASP	B	41	120.942	21.243	127.844	1.00	45.53
ATOM	1254	OD2	ASP	B	41	119.251	20.820	129.180	1.00	42.00
ATOM	1255	C	ASP	B	41	117.365	22.622	129.312	1.00	37.83
ATOM	1256	O	ASP	B	41	116.745	22.011	130.184	1.00	38.38
ATOM	1257	N	GLY	B	42	117.021	22.603	128.028	1.00	35.97
ATOM	1258	CA	GLY	B	42	115.860	21.849	127.590	1.00	35.38
ATOM	1259	C	GLY	B	42	116.124	20.881	126.446	1.00	35.25
ATOM	1260	O	GLY	B	42	117.119	21.001	125.742	1.00	37.44
ATOM	1261	N	VAL	B	43	115.233	19.912	126.268	1.00	33.57
ATOM	1262	CA	VAL	B	43	115.352	18.928	125.203	1.00	32.47
ATOM	1263	CB	VAL	B	43	116.279	17.752	125.573	1.00	30.78
ATOM	1264	CG1	VAL	B	43	117.687	18.146	125.372	1.00	30.16

Table 1

ATOM	1265	CG2	VAL	B	43	116.049	17.324	127.008	1.00	30.59
ATOM	1266	C	VAL	B	43	113.997	18.340	124.899	1.00	33.51
ATOM	1267	O	VAL	B	43	113.227	18.032	125.810	1.00	34.09
ATOM	1268	N	ARG	B	44	113.720	18.162	123.615	1.00	33.46
ATOM	1269	CA	ARG	B	44	112.456	17.600	123.178	1.00	33.32
ATOM	1270	CB	ARG	B	44	112.217	17.925	121.711	1.00	32.91
ATOM	1271	CG	ARG	B	44	112.222	19.390	121.366	1.00	33.07
ATOM	1272	CD	ARG	B	44	111.099	19.639	120.384	1.00	34.99
ATOM	1273	NE	ARG	B	44	111.156	20.953	119.760	1.00	35.14
ATOM	1274	CZ	ARG	B	44	112.144	21.349	118.969	1.00	36.05
ATOM	1275	NH1	ARG	B	44	113.166	20.523	118.714	1.00	36.18
ATOM	1276	NH2	ARG	B	44	112.097	22.556	118.420	1.00	33.20
ATOM	1277	C	ARG	B	44	112.416	16.087	123.338	1.00	33.08
ATOM	1278	O	ARG	B	44	111.340	15.502	123.471	1.00	32.18
ATOM	1279	N	GLU	B	45	113.579	15.450	123.322	1.00	33.83
ATOM	1280	CA	GLU	B	45	113.611	13.994	123.424	1.00	36.58
ATOM	1281	CB	GLU	B	45	114.997	13.433	123.108	1.00	38.67
ATOM	1282	CG	GLU	B	45	115.037	11.900	123.234	1.00	41.88
ATOM	1283	CD	GLU	B	45	113.997	11.189	122.343	1.00	44.31
ATOM	1284	OE1	GLU	B	45	114.080	11.341	121.102	1.00	42.64
ATOM	1285	OE2	GLU	B	45	113.104	10.476	122.878	1.00	43.97
ATOM	1286	C	GLU	B	45	113.161	13.415	124.748	1.00	36.47
ATOM	1287	O	GLU	B	45	113.914	13.398	125.724	1.00	37.20
ATOM	1288	N	LYS	B	46	111.939	12.899	124.752	1.00	36.81
ATOM	1289	CA	LYS	B	46	111.332	12.304	125.935	1.00	37.99
ATOM	1290	CB	LYS	B	46	109.933	11.794	125.581	1.00	39.90
ATOM	1291	CG	LYS	B	46	109.087	11.317	126.752	1.00	43.95
ATOM	1292	CD	LYS	B	46	107.666	10.993	126.262	1.00	47.36
ATOM	1293	CE	LYS	B	46	106.787	10.333	127.338	1.00	48.53
ATOM	1294	NZ	LYS	B	46	106.393	8.920	126.999	1.00	47.10
ATOM	1295	C	LYS	B	46	112.159	11.175	126.553	1.00	37.61
ATOM	1296	O	LYS	B	46	112.018	10.874	127.736	1.00	38.77
ATOM	1297	N	SER	B	47	113.032	10.554	125.773	1.00	37.27
ATOM	1298	CA	SER	B	47	113.843	9.464	126.314	1.00	37.83
ATOM	1299	CB	SER	B	47	114.182	8.465	125.209	1.00	40.05
ATOM	1300	OG	SER	B	47	114.903	9.101	124.168	1.00	41.43
ATOM	1301	C	SER	B	47	115.137	9.953	126.971	1.00	37.29
ATOM	1302	O	SER	B	47	115.942	9.151	127.461	1.00	36.39
ATOM	1303	N	ASP	B	48	115.337	11.267	126.984	1.00	35.33
ATOM	1304	CA	ASP	B	48	116.536	11.807	127.588	1.00	34.88
ATOM	1305	CB	ASP	B	48	116.502	13.319	127.628	1.00	35.85
ATOM	1306	CG	ASP	B	48	117.822	13.882	128.042	1.00	37.14
ATOM	1307	OD1	ASP	B	48	118.492	14.504	127.195	1.00	38.97
ATOM	1308	OD2	ASP	B	48	118.203	13.669	129.212	1.00	38.89
ATOM	1309	C	ASP	B	48	116.675	11.275	129.005	1.00	34.83
ATOM	1310	O	ASP	B	48	115.711	11.244	129.771	1.00	34.62
ATOM	1311	N	PRO	B	49	117.890	10.875	129.388	1.00	34.68
ATOM	1312	CD	PRO	B	49	119.175	11.093	128.695	1.00	35.21
ATOM	1313	CA	PRO	B	49	118.114	10.336	130.730	1.00	34.34
ATOM	1314	CB	PRO	B	49	119.507	9.758	130.624	1.00	34.29
ATOM	1315	CG	PRO	B	49	120.194	10.836	129.798	1.00	35.75
ATOM	1316	C	PRO	B	49	118.026	11.340	131.869	1.00	34.60
ATOM	1317	O	PRO	B	49	117.728	10.969	133.004	1.00	34.68
ATOM	1318	N	HIS	B	50	118.274	12.611	131.569	1.00	34.99
ATOM	1319	CA	HIS	B	50	118.281	13.640	132.605	1.00	35.11

Table 1

ATOM	1320	CB	HIS	B	50	119.514	14.516	132.433	1.00	38.33
ATOM	1321	CG	HIS	B	50	120.771	13.732	132.248	1.00	39.99
ATOM	1322	CD2	HIS	B	50	121.628	13.656	131.205	1.00	40.25
ATOM	1323	ND1	HIS	B	50	121.224	12.830	133.186	1.00	40.36
ATOM	1324	CE1	HIS	B	50	122.304	12.228	132.725	1.00	41.16
ATOM	1325	NE2	HIS	B	50	122.569	12.711	131.525	1.00	41.80
ATOM	1326	C	HIS	B	50	117.064	14.529	132.695	1.00	33.22
ATOM	1327	O	HIS	B	50	117.154	15.649	133.191	1.00	32.87
ATOM	1328	N	ILE	B	51	115.921	14.046	132.237	1.00	31.67
ATOM	1329	CA	ILE	B	51	114.726	14.867	132.302	1.00	29.82
ATOM	1330	CB	ILE	B	51	113.988	14.899	130.938	1.00	27.56
ATOM	1331	CG2	ILE	B	51	114.947	15.389	129.861	1.00	27.80
ATOM	1332	CG1	ILE	B	51	113.427	13.520	130.591	1.00	23.56
ATOM	1333	CD1	ILE	B	51	112.630	13.498	129.324	1.00	19.14
ATOM	1334	C	ILE	B	51	113.744	14.454	133.387	1.00	29.57
ATOM	1335	O	ILE	B	51	112.771	15.156	133.625	1.00	29.45
ATOM	1336	N	LYS	B	52	113.998	13.324	134.043	1.00	30.99
ATOM	1337	CA	LYS	B	52	113.119	12.857	135.114	1.00	32.77
ATOM	1338	CB	LYS	B	52	113.319	11.364	135.377	1.00	35.63
ATOM	1339	CG	LYS	B	52	112.769	10.497	134.265	1.00	40.57
ATOM	1340	CD	LYS	B	52	112.534	9.059	134.718	1.00	43.44
ATOM	1341	CE	LYS	B	52	111.798	8.274	133.625	1.00	44.57
ATOM	1342	NZ	LYS	B	52	111.173	7.015	134.138	1.00	46.19
ATOM	1343	C	LYS	B	52	113.387	13.651	136.386	1.00	31.74
ATOM	1344	O	LYS	B	52	114.458	13.540	136.990	1.00	30.75
ATOM	1345	N	LEU	B	53	112.389	14.443	136.776	1.00	30.81
ATOM	1346	CA	LEU	B	53	112.450	15.321	137.941	1.00	28.75
ATOM	1347	CB	LEU	B	53	111.893	16.689	137.561	1.00	26.09
ATOM	1348	CG	LEU	B	53	112.283	17.154	136.159	1.00	23.54
ATOM	1349	CD1	LEU	B	53	111.568	18.436	135.788	1.00	21.62
ATOM	1350	CD2	LEU	B	53	113.780	17.343	136.124	1.00	22.95
ATOM	1351	C	LEU	B	53	111.656	14.791	139.123	1.00	28.90
ATOM	1352	O	LEU	B	53	110.652	14.108	138.960	1.00	29.34
ATOM	1353	N	GLN	B	54	112.116	15.114	140.323	1.00	29.74
ATOM	1354	CA	GLN	B	54	111.426	14.695	141.530	1.00	28.75
ATOM	1355	CB	GLN	B	54	112.362	13.864	142.403	1.00	26.78
ATOM	1356	CG	GLN	B	54	111.667	13.080	143.490	1.00	28.67
ATOM	1357	CD	GLN	B	54	110.638	12.088	142.956	1.00	30.79
ATOM	1358	OE1	GLN	B	54	110.960	11.197	142.163	1.00	33.61
ATOM	1359	NE2	GLN	B	54	109.396	12.235	143.398	1.00	30.23
ATOM	1360	C	GLN	B	54	111.025	15.986	142.234	1.00	28.64
ATOM	1361	O	GLN	B	54	111.854	16.671	142.816	1.00	29.72
ATOM	1362	N	LEU	B	55	109.752	16.340	142.132	1.00	28.94
ATOM	1363	CA	LEU	B	55	109.270	17.554	142.759	1.00	27.80
ATOM	1364	CB	LEU	B	55	108.072	18.148	142.006	1.00	27.78
ATOM	1365	CG	LEU	B	55	108.160	18.507	140.514	1.00	26.52
ATOM	1366	CD1	LEU	B	55	109.194	19.576	140.274	1.00	27.66
ATOM	1367	CD2	LEU	B	55	108.480	17.267	139.724	1.00	27.39
ATOM	1368	C	LEU	B	55	108.863	17.173	144.167	1.00	27.87
ATOM	1369	O	LEU	B	55	108.118	16.210	144.389	1.00	27.58
ATOM	1370	N	GLN	B	56	109.394	17.925	145.119	1.00	27.07
ATOM	1371	CA	GLN	B	56	109.115	17.699	146.519	1.00	26.11
ATOM	1372	CB	GLN	B	56	110.390	17.269	147.244	1.00	25.15
ATOM	1373	CG	GLN	B	56	110.220	17.014	148.719	1.00	20.80
ATOM	1374	CD	GLN	B	56	109.326	15.828	149.010	1.00	23.03

Table 1

ATOM	1375	OE1	GLN	B	56	109.585	14.707	148.564	1.00	21.86
ATOM	1376	NE2	GLN	B	56	108.265	16.067	149.771	1.00	24.69
ATOM	1377	C	GLN	B	56	108.601	18.997	147.114	1.00	27.37
ATOM	1378	O	GLN	B	56	109.140	20.076	146.863	1.00	26.42
ATOM	1379	N	ALA	B	57	107.545	18.891	147.902	1.00	27.79
ATOM	1380	CA	ALA	B	57	106.985	20.068	148.521	1.00	27.74
ATOM	1381	CB	ALA	B	57	105.495	19.869	148.763	1.00	27.74
ATOM	1382	C	ALA	B	57	107.705	20.310	149.833	1.00	28.44
ATOM	1383	O	ALA	B	57	107.961	19.372	150.593	1.00	26.26
ATOM	1384	N	GLU	B	58	108.042	21.572	150.087	1.00	30.24
ATOM	1385	CA	GLU	B	58	108.710	21.951	151.328	1.00	31.94
ATOM	1386	CB	GLU	B	58	109.725	23.073	151.089	1.00	32.06
ATOM	1387	CG	GLU	B	58	110.875	23.099	152.094	1.00	32.70
ATOM	1388	CD	GLU	B	58	111.582	21.747	152.219	1.00	35.13
ATOM	1389	OE1	GLU	B	58	111.629	20.999	151.210	1.00	37.39
ATOM	1390	OE2	GLU	B	58	112.104	21.436	153.319	1.00	34.15
ATOM	1391	C	GLU	B	58	107.614	22.433	152.255	1.00	32.23
ATOM	1392	O	GLU	B	58	107.745	22.371	153.471	1.00	33.09
ATOM	1393	N	GLU	B	59	106.531	22.903	151.643	1.00	32.83
ATOM	1394	CA	GLU	B	59	105.347	23.391	152.336	1.00	32.73
ATOM	1395	CB	GLU	B	59	105.676	24.642	153.137	1.00	34.19
ATOM	1396	CG	GLU	B	59	106.362	25.734	152.354	1.00	37.42
ATOM	1397	CD	GLU	B	59	106.419	27.017	153.160	1.00	41.98
ATOM	1398	OE1	GLU	B	59	106.713	26.920	154.376	1.00	43.49
ATOM	1399	OE2	GLU	B	59	106.175	28.109	152.594	1.00	42.36
ATOM	1400	C	GLU	B	59	104.294	23.697	151.275	1.00	31.75
ATOM	1401	O	GLU	B	59	104.594	23.657	150.086	1.00	30.10
ATOM	1402	N	ARG	B	60	103.070	24.007	151.689	1.00	31.28
ATOM	1403	CA	ARG	B	60	102.009	24.291	150.722	1.00	32.14
ATOM	1404	CB	ARG	B	60	100.765	24.866	151.402	1.00	31.64
ATOM	1405	CG	ARG	B	60	99.878	23.830	152.044	1.00	36.28
ATOM	1406	CD	ARG	B	60	98.689	24.483	152.722	1.00	39.82
ATOM	1407	NE	ARG	B	60	97.848	25.183	151.756	1.00	44.52
ATOM	1408	CZ	ARG	B	60	96.775	25.901	152.076	1.00	44.93
ATOM	1409	NH1	ARG	B	60	96.409	26.017	153.349	1.00	44.87
ATOM	1410	NH2	ARG	B	60	96.066	26.499	151.121	1.00	44.99
ATOM	1411	C	ARG	B	60	102.426	25.228	149.604	1.00	30.88
ATOM	1412	O	ARG	B	60	102.863	26.347	149.856	1.00	30.20
ATOM	1413	N	GLY	B	61	102.279	24.754	148.368	1.00	29.53
ATOM	1414	CA	GLY	B	61	102.623	25.558	147.209	1.00	28.37
ATOM	1415	C	GLY	B	61	104.097	25.855	146.951	1.00	26.54
ATOM	1416	O	GLY	B	61	104.413	26.716	146.125	1.00	25.85
ATOM	1417	N	VAL	B	62	104.994	25.154	147.642	1.00	23.72
ATOM	1418	CA	VAL	B	62	106.428	25.364	147.463	1.00	21.76
ATOM	1419	CB	VAL	B	62	107.067	26.030	148.710	1.00	18.92
ATOM	1420	CG1	VAL	B	62	108.589	25.949	148.630	1.00	18.20
ATOM	1421	CG2	VAL	B	62	106.637	27.468	148.811	1.00	14.47
ATOM	1422	C	VAL	B	62	107.132	24.036	147.206	1.00	22.30
ATOM	1423	O	VAL	B	62	106.994	23.093	147.982	1.00	22.35
ATOM	1424	N	VAL	B	63	107.899	23.972	146.125	1.00	21.78
ATOM	1425	CA	VAL	B	63	108.599	22.750	145.787	1.00	23.21
ATOM	1426	CB	VAL	B	63	107.937	22.058	144.578	1.00	21.42
ATOM	1427	CG1	VAL	B	63	106.487	21.831	144.850	1.00	20.97
ATOM	1428	CG2	VAL	B	63	108.106	22.900	143.338	1.00	19.19
ATOM	1429	C	VAL	B	63	110.067	22.963	145.440	1.00	25.78

Table 1

ATOM	1430	O	VAL	B	63	110.484	24.060	145.071	1.00	28.04
ATOM	1431	N	SER	B	64	110.842	21.894	145.577	1.00	26.96
ATOM	1432	CA	SER	B	64	112.253	21.905	145.214	1.00	27.58
ATOM	1433	CB	SER	B	64	113.153	21.333	146.323	1.00	26.89
ATOM	1434	OG	SER	B	64	113.006	19.927	146.434	1.00	27.20
ATOM	1435	C	SER	B	64	112.197	20.941	144.048	1.00	27.27
ATOM	1436	O	SER	B	64	111.467	19.956	144.090	1.00	27.77
ATOM	1437	N	ILE	B	65	112.943	21.239	143.000	1.00	27.86
ATOM	1438	CA	ILE	B	65	112.954	20.399	141.820	1.00	26.92
ATOM	1439	CB	ILE	B	65	112.755	21.274	140.552	1.00	26.65
ATOM	1440	CG2	ILE	B	65	112.860	20.409	139.280	1.00	26.91
ATOM	1441	CG1	ILE	B	65	111.390	21.982	140.646	1.00	24.20
ATOM	1442	CD1	ILE	B	65	111.158	23.103	139.653	1.00	21.27
ATOM	1443	C	ILE	B	65	114.284	19.663	141.781	1.00	27.92
ATOM	1444	O	ILE	B	65	115.338	20.279	141.604	1.00	29.68
ATOM	1445	N	LYS	B	66	114.235	18.349	141.975	1.00	27.70
ATOM	1446	CA	LYS	B	66	115.443	17.536	141.974	1.00	27.93
ATOM	1447	CB	LYS	B	66	115.433	16.571	143.141	1.00	28.47
ATOM	1448	CG	LYS	B	66	116.602	15.613	143.107	1.00	28.99
ATOM	1449	CD	LYS	B	66	116.637	14.760	144.353	1.00	31.91
ATOM	1450	CE	LYS	B	66	118.065	14.652	144.880	1.00	34.91
ATOM	1451	NZ	LYS	B	66	118.119	13.913	146.175	1.00	37.70
ATOM	1452	C	LYS	B	66	115.621	16.709	140.717	1.00	29.46
ATOM	1453	O	LYS	B	66	114.724	15.950	140.354	1.00	29.47
ATOM	1454	N	GLY	B	67	116.777	16.847	140.064	1.00	29.55
ATOM	1455	CA	GLY	B	67	117.058	16.059	138.877	1.00	29.40
ATOM	1456	C	GLY	B	67	117.436	14.674	139.374	1.00	30.54
ATOM	1457	O	GLY	B	67	118.471	14.506	140.019	1.00	31.69
ATOM	1458	N	VAL	B	68	116.600	13.680	139.097	1.00	30.20
ATOM	1459	CA	VAL	B	68	116.861	12.328	139.577	1.00	31.28
ATOM	1460	CB	VAL	B	68	115.708	11.363	139.188	1.00	29.45
ATOM	1461	CG1	VAL	B	68	116.075	9.937	139.551	1.00	24.11
ATOM	1462	CG2	VAL	B	68	114.424	11.768	139.911	1.00	26.34
ATOM	1463	C	VAL	B	68	118.184	11.744	139.110	1.00	33.38
ATOM	1464	O	VAL	B	68	118.915	11.157	139.899	1.00	33.82
ATOM	1465	N	SER	B	69	118.494	11.893	137.830	1.00	36.86
ATOM	1466	CA	SER	B	69	119.744	11.352	137.317	1.00	38.82
ATOM	1467	CB	SER	B	69	119.751	11.387	135.792	1.00	40.75
ATOM	1468	OG	SER	B	69	120.967	10.861	135.293	1.00	42.57
ATOM	1469	C	SER	B	69	120.941	12.137	137.867	1.00	39.71
ATOM	1470	O	SER	B	69	121.865	11.550	138.434	1.00	40.03
ATOM	1471	N	ALA	B	70	120.911	13.459	137.717	1.00	39.07
ATOM	1472	CA	ALA	B	70	121.998	14.316	138.187	1.00	38.97
ATOM	1473	CB	ALA	B	70	121.841	15.714	137.608	1.00	37.82
ATOM	1474	C	ALA	B	70	122.102	14.422	139.702	1.00	39.68
ATOM	1475	O	ALA	B	70	123.134	14.840	140.231	1.00	40.63
ATOM	1476	N	ASN	B	71	121.041	14.044	140.401	1.00	40.19
ATOM	1477	CA	ASN	B	71	121.007	14.161	141.854	1.00	40.46
ATOM	1478	CB	ASN	B	71	121.953	13.170	142.516	1.00	40.79
ATOM	1479	CG	ASN	B	71	121.742	13.090	144.016	1.00	40.60
ATOM	1480	OD1	ASN	B	71	120.735	12.562	144.486	1.00	41.57
ATOM	1481	ND2	ASN	B	71	122.683	13.630	144.775	1.00	41.54
ATOM	1482	C	ASN	B	71	121.398	15.584	142.270	1.00	40.88
ATOM	1483	O	ASN	B	71	122.240	15.780	143.154	1.00	41.28
ATOM	1484	N	ARG	B	72	120.788	16.567	141.611	1.00	40.64

Table 1

ATOM	1485	CA	ARG	B	72	121.036	17.980	141.891	1.00	40.55
ATOM	1486	CB	ARG	B	72	121.898	18.600	140.793	1.00	41.41
ATOM	1487	CG	ARG	B	72	123.366	18.189	140.786	1.00	42.06
ATOM	1488	CD	ARG	B	72	124.021	18.715	139.515	1.00	43.85
ATOM	1489	NE	ARG	B	72	125.474	18.584	139.511	1.00	44.83
ATOM	1490	CZ	ARG	B	72	126.299	19.341	140.226	1.00	42.83
ATOM	1491	NH1	ARG	B	72	125.819	20.294	141.013	1.00	42.08
ATOM	1492	NH2	ARG	B	72	127.606	19.137	140.154	1.00	41.81
ATOM	1493	C	ARG	B	72	119.704	18.716	141.946	1.00	40.00
ATOM	1494	O	ARG	B	72	118.725	18.279	141.350	1.00	40.69
ATOM	1495	N	TYR	B	73	119.678	19.841	142.650	1.00	39.69
ATOM	1496	CA	TYR	B	73	118.462	20.629	142.784	1.00	38.01
ATOM	1497	CB	TYR	B	73	118.266	21.040	144.239	1.00	37.74
ATOM	1498	CG	TYR	B	73	118.162	19.861	145.156	1.00	38.72
ATOM	1499	CD1	TYR	B	73	119.296	19.134	145.518	1.00	38.86
ATOM	1500	CE1	TYR	B	73	119.198	18.006	146.319	1.00	39.71
ATOM	1501	CD2	TYR	B	73	116.923	19.433	145.624	1.00	39.11
ATOM	1502	CE2	TYR	B	73	116.810	18.306	146.430	1.00	39.71
ATOM	1503	CZ	TYR	B	73	117.948	17.596	146.771	1.00	40.56
ATOM	1504	OH	TYR	B	73	117.831	16.467	147.548	1.00	42.94
ATOM	1505	C	TYR	B	73	118.489	21.872	141.920	1.00	37.16
ATOM	1506	O	TYR	B	73	119.464	22.620	141.928	1.00	36.61
ATOM	1507	N	LEU	B	74	117.411	22.098	141.177	1.00	35.71
ATOM	1508	CA	LEU	B	74	117.324	23.283	140.332	1.00	35.01
ATOM	1509	CB	LEU	B	74	116.031	23.268	139.519	1.00	35.05
ATOM	1510	CG	LEU	B	74	115.822	24.514	138.649	1.00	37.90
ATOM	1511	CD1	LEU	B	74	116.901	24.617	137.565	1.00	37.05
ATOM	1512	CD2	LEU	B	74	114.441	24.456	138.020	1.00	37.87
ATOM	1513	C	LEU	B	74	117.368	24.537	141.203	1.00	34.61
ATOM	1514	O	LEU	B	74	116.637	24.650	142.188	1.00	33.92
ATOM	1515	N	ALA	B	75	118.240	25.472	140.847	1.00	34.97
ATOM	1516	CA	ALA	B	75	118.367	26.704	141.610	1.00	36.06
ATOM	1517	CB	ALA	B	75	119.599	26.647	142.493	1.00	33.12
ATOM	1518	C	ALA	B	75	118.410	27.955	140.741	1.00	36.98
ATOM	1519	O	ALA	B	75	118.963	27.959	139.643	1.00	36.77
ATOM	1520	N	MET	B	76	117.800	29.014	141.252	1.00	39.19
ATOM	1521	CA	MET	B	76	117.756	30.296	140.576	1.00	42.08
ATOM	1522	CB	MET	B	76	116.372	30.928	140.715	1.00	42.36
ATOM	1523	CG	MET	B	76	116.301	32.378	140.264	1.00	41.46
ATOM	1524	SD	MET	B	76	115.478	32.588	138.680	1.00	43.04
ATOM	1525	CE	MET	B	76	113.881	33.019	139.188	1.00	40.48
ATOM	1526	C	MET	B	76	118.771	31.160	141.291	1.00	45.25
ATOM	1527	O	MET	B	76	118.787	31.217	142.523	1.00	44.89
ATOM	1528	N	LYS	B	77	119.619	31.831	140.521	1.00	48.52
ATOM	1529	CA	LYS	B	77	120.639	32.695	141.097	1.00	52.31
ATOM	1530	CB	LYS	B	77	121.934	32.641	140.280	1.00	53.30
ATOM	1531	CG	LYS	B	77	122.496	31.239	140.049	1.00	56.11
ATOM	1532	CD	LYS	B	77	122.588	30.435	141.334	1.00	58.28
ATOM	1533	CE	LYS	B	77	123.405	31.153	142.391	1.00	59.93
ATOM	1534	NZ	LYS	B	77	123.562	30.287	143.589	1.00	62.93
ATOM	1535	C	LYS	B	77	120.158	34.135	141.161	1.00	54.00
ATOM	1536	O	LYS	B	77	119.186	34.510	140.505	1.00	53.67
ATOM	1537	N	GLU	B	78	120.865	34.937	141.950	1.00	56.33
ATOM	1538	CA	GLU	B	78	120.542	36.344	142.137	1.00	58.25
ATOM	1539	CB	GLU	B	78	121.662	37.045	142.912	1.00	61.62

Table 1

ATOM	1540	CG	GLU	B	78	122.843	37.464	142.034	1.00	67.26
ATOM	1541	CD	GLU	B	78	123.925	38.221	142.798	1.00	70.03
ATOM	1542	OE1	GLU	B	78	123.568	39.077	143.639	1.00	69.74
ATOM	1543	OE2	GLU	B	78	125.132	37.969	142.546	1.00	71.37
ATOM	1544	C	GLU	B	78	120.319	37.093	140.827	1.00	57.71
ATOM	1545	O	GLU	B	78	119.465	37.974	140.757	1.00	58.26
ATOM	1546	N	ASP	B	79	121.092	36.757	139.797	1.00	56.53
ATOM	1547	CA	ASP	B	79	120.966	37.431	138.510	1.00	54.63
ATOM	1548	CB	ASP	B	79	122.319	37.464	137.798	1.00	52.84
ATOM	1549	CG	ASP	B	79	122.815	36.092	137.430	1.00	51.45
ATOM	1550	OD1	ASP	B	79	123.915	35.997	136.854	1.00	51.83
ATOM	1551	OD2	ASP	B	79	122.107	35.105	137.714	1.00	51.29
ATOM	1552	C	ASP	B	79	119.916	36.780	137.611	1.00	54.78
ATOM	1553	O	ASP	B	79	119.636	37.264	136.506	1.00	55.45
ATOM	1554	N	GLY	B	80	119.344	35.677	138.084	1.00	53.84
ATOM	1555	CA	GLY	B	80	118.320	34.996	137.315	1.00	51.77
ATOM	1556	C	GLY	B	80	118.778	33.857	136.426	1.00	50.03
ATOM	1557	O	GLY	B	80	118.055	33.464	135.515	1.00	49.68
ATOM	1558	N	ARG	B	81	119.966	33.320	136.669	1.00	48.16
ATOM	1559	CA	ARG	B	81	120.433	32.214	135.850	1.00	48.37
ATOM	1560	CB	ARG	B	81	121.935	32.331	135.589	1.00	51.00
ATOM	1561	CG	ARG	B	81	122.780	32.353	136.833	1.00	56.56
ATOM	1562	CD	ARG	B	81	124.245	32.646	136.531	1.00	60.32
ATOM	1563	NE	ARG	B	81	125.073	32.401	137.714	1.00	66.82
ATOM	1564	CZ	ARG	B	81	125.085	33.162	138.811	1.00	68.79
ATOM	1565	NH1	ARG	B	81	124.320	34.243	138.895	1.00	69.57
ATOM	1566	NH2	ARG	B	81	125.848	32.822	139.846	1.00	69.73
ATOM	1567	C	ARG	B	81	120.113	30.917	136.563	1.00	46.60
ATOM	1568	O	ARG	B	81	120.075	30.867	137.786	1.00	47.16
ATOM	1569	N	LEU	B	82	119.866	29.870	135.793	1.00	45.60
ATOM	1570	CA	LEU	B	82	119.536	28.572	136.361	1.00	45.32
ATOM	1571	CB	LEU	B	82	118.471	27.885	135.504	1.00	44.81
ATOM	1572	CG	LEU	B	82	117.161	28.639	135.289	1.00	43.76
ATOM	1573	CD1	LEU	B	82	116.270	27.844	134.357	1.00	43.35
ATOM	1574	CD2	LEU	B	82	116.475	28.865	136.623	1.00	42.51
ATOM	1575	C	LEU	B	82	120.747	27.659	136.432	1.00	44.48
ATOM	1576	O	LEU	B	82	121.666	27.784	135.638	1.00	44.80
ATOM	1577	N	LEU	B	83	120.732	26.747	137.394	1.00	44.12
ATOM	1578	CA	LEU	B	83	121.787	25.759	137.555	1.00	43.94
ATOM	1579	CB	LEU	B	83	123.105	26.406	137.989	1.00	44.49
ATOM	1580	CG	LEU	B	83	123.219	27.253	139.250	1.00	47.44
ATOM	1581	CD1	LEU	B	83	123.023	26.367	140.485	1.00	47.58
ATOM	1582	CD2	LEU	B	83	124.606	27.928	139.272	1.00	45.96
ATOM	1583	C	LEU	B	83	121.276	24.759	138.572	1.00	43.94
ATOM	1584	O	LEU	B	83	120.284	25.024	139.252	1.00	43.82
ATOM	1585	N	ALA	B	84	121.919	23.603	138.658	1.00	44.85
ATOM	1586	CA	ALA	B	84	121.466	22.577	139.589	1.00	46.61
ATOM	1587	CB	ALA	B	84	121.174	21.274	138.841	1.00	46.16
ATOM	1588	C	ALA	B	84	122.495	22.346	140.674	1.00	46.94
ATOM	1589	O	ALA	B	84	123.552	21.774	140.424	1.00	48.51
ATOM	1590	N	SER	B	85	122.166	22.806	141.878	1.00	47.21
ATOM	1591	CA	SER	B	85	123.029	22.689	143.040	1.00	46.19
ATOM	1592	CB	SER	B	85	122.485	23.579	144.153	1.00	45.16
ATOM	1593	OG	SER	B	85	123.154	23.322	145.364	1.00	48.28
ATOM	1594	C	SER	B	85	123.172	21.246	143.525	1.00	46.62

Table 1

ATOM	1595	O	SER	B	85	122.293	20.411	143.310	1.00	46.65
ATOM	1596	N	LYS	B	86	124.295	20.952	144.171	1.00	47.71
ATOM	1597	CA	LYS	B	86	124.548	19.605	144.675	1.00	47.68
ATOM	1598	CB	LYS	B	86	126.028	19.438	145.025	1.00	49.80
ATOM	1599	CG	LYS	B	86	126.566	18.033	144.786	1.00	53.25
ATOM	1600	CD	LYS	B	86	126.384	17.633	143.330	1.00	56.56
ATOM	1601	CE	LYS	B	86	127.312	16.493	142.943	1.00	60.15
ATOM	1602	NZ	LYS	B	86	127.290	16.233	141.465	1.00	62.57
ATOM	1603	C	LYS	B	86	123.695	19.359	145.908	1.00	45.92
ATOM	1604	O	LYS	B	86	123.088	18.302	146.060	1.00	45.78
ATOM	1605	N	SER	B	87	123.663	20.345	146.794	1.00	44.95
ATOM	1606	CA	SER	B	87	122.859	20.251	148.004	1.00	44.18
ATOM	1607	CB	SER	B	87	123.744	20.317	149.253	1.00	44.78
ATOM	1608	OG	SER	B	87	124.591	21.449	149.210	1.00	45.74
ATOM	1609	C	SER	B	87	121.847	21.394	148.010	1.00	42.91
ATOM	1610	O	SER	B	87	122.017	22.403	147.324	1.00	41.78
ATOM	1611	N	VAL	B	88	120.789	21.220	148.785	1.00	40.56
ATOM	1612	CA	VAL	B	88	119.733	22.207	148.881	1.00	38.85
ATOM	1613	CB	VAL	B	88	118.567	21.602	149.674	1.00	37.72
ATOM	1614	CG1	VAL	B	88	117.461	22.626	149.871	1.00	38.20
ATOM	1615	CG2	VAL	B	88	118.059	20.377	148.960	1.00	35.37
ATOM	1616	C	VAL	B	88	120.150	23.536	149.534	1.00	39.23
ATOM	1617	O	VAL	B	88	120.736	23.553	150.620	1.00	39.42
ATOM	1618	N	THR	B	89	119.845	24.642	148.857	1.00	38.16
ATOM	1619	CA	THR	B	89	120.125	25.980	149.365	1.00	38.00
ATOM	1620	CB	THR	B	89	121.119	26.779	148.452	1.00	38.35
ATOM	1621	OG1	THR	B	89	120.462	27.238	147.262	1.00	36.90
ATOM	1622	CG2	THR	B	89	122.278	25.903	148.059	1.00	37.82
ATOM	1623	C	THR	B	89	118.776	26.685	149.378	1.00	38.23
ATOM	1624	O	THR	B	89	117.757	26.067	149.092	1.00	38.55
ATOM	1625	N	ASP	B	90	118.767	27.974	149.689	1.00	39.48
ATOM	1626	CA	ASP	B	90	117.531	28.747	149.751	1.00	40.53
ATOM	1627	CB	ASP	B	90	117.766	29.980	150.619	1.00	45.07
ATOM	1628	CG	ASP	B	90	118.708	30.983	149.963	1.00	49.28
ATOM	1629	OD1	ASP	B	90	119.724	30.564	149.352	1.00	51.36
ATOM	1630	OD2	ASP	B	90	118.432	32.198	150.066	1.00	50.64
ATOM	1631	C	ASP	B	90	117.020	29.184	148.378	1.00	39.14
ATOM	1632	O	ASP	B	90	115.947	29.777	148.263	1.00	39.83
ATOM	1633	N	GLU	B	91	117.794	28.908	147.339	1.00	37.50
ATOM	1634	CA	GLU	B	91	117.396	29.283	145.989	1.00	36.18
ATOM	1635	CB	GLU	B	91	118.600	29.828	145.214	1.00	34.46
ATOM	1636	CG	GLU	B	91	119.385	30.900	145.952	1.00	35.83
ATOM	1637	CD	GLU	B	91	120.581	31.430	145.146	1.00	37.27
ATOM	1638	OE1	GLU	B	91	121.449	30.619	144.757	1.00	37.05
ATOM	1639	OE2	GLU	B	91	120.655	32.657	144.902	1.00	36.08
ATOM	1640	C	GLU	B	91	116.815	28.066	145.263	1.00	34.93
ATOM	1641	O	GLU	B	91	116.515	28.121	144.070	1.00	32.42
ATOM	1642	N	CYS	B	92	116.648	26.973	145.998	1.00	33.43
ATOM	1643	CA	CYS	B	92	116.133	25.753	145.410	1.00	33.96
ATOM	1644	CB	CYS	B	92	116.918	24.558	145.956	1.00	33.84
ATOM	1645	SG	CYS	B	92	118.642	24.511	145.386	1.00	31.04
ATOM	1646	C	CYS	B	92	114.634	25.545	145.604	1.00	33.90
ATOM	1647	O	CYS	B	92	114.114	24.447	145.378	1.00	34.76
ATOM	1648	N	PHE	B	93	113.934	26.604	145.993	1.00	32.95
ATOM	1649	CA	PHE	B	93	112.495	26.513	146.204	1.00	31.87

Table 1

ATOM	1650	CB	PHE	B	93	112.182	26.819	147.659	1.00	31.02
ATOM	1651	CG	PHE	B	93	112.813	25.853	148.604	1.00	31.34
ATOM	1652	CD1	PHE	B	93	112.373	24.532	148.660	1.00	32.18
ATOM	1653	CD2	PHE	B	93	113.882	26.235	149.401	1.00	30.66
ATOM	1654	CE1	PHE	B	93	112.996	23.606	149.502	1.00	29.81
ATOM	1655	CE2	PHE	B	93	114.508	25.318	150.242	1.00	29.19
ATOM	1656	CZ	PHE	B	93	114.061	24.001	150.289	1.00	29.42
ATOM	1657	C	PHE	B	93	111.692	27.409	145.266	1.00	31.34
ATOM	1658	O	PHE	B	93	112.080	28.542	144.967	1.00	31.56
ATOM	1659	N	PHE	B	94	110.564	26.886	144.798	1.00	29.36
ATOM	1660	CA	PHE	B	94	109.731	27.621	143.860	1.00	26.56
ATOM	1661	CB	PHE	B	94	109.992	27.093	142.452	1.00	25.63
ATOM	1662	CG	PHE	B	94	111.426	27.126	142.071	1.00	24.51
ATOM	1663	CD1	PHE	B	94	112.004	28.299	141.607	1.00	25.06
ATOM	1664	CD2	PHE	B	94	112.220	26.000	142.243	1.00	25.56
ATOM	1665	CE1	PHE	B	94	113.356	28.356	141.321	1.00	25.77
ATOM	1666	CE2	PHE	B	94	113.574	26.039	141.962	1.00	25.63
ATOM	1667	CZ	PHE	B	94	114.148	27.219	141.499	1.00	25.73
ATOM	1668	C	PHE	B	94	108.255	27.503	144.175	1.00	25.19
ATOM	1669	O	PHE	B	94	107.820	26.531	144.803	1.00	23.94
ATOM	1670	N	PHE	B	95	107.493	28.502	143.742	1.00	22.53
ATOM	1671	CA	PHE	B	95	106.055	28.485	143.944	1.00	23.75
ATOM	1672	CB	PHE	B	95	105.469	29.894	143.954	1.00	21.99
ATOM	1673	CG	PHE	B	95	105.775	30.663	145.196	1.00	22.80
ATOM	1674	CD1	PHE	B	95	106.414	31.901	145.120	1.00	22.56
ATOM	1675	CD2	PHE	B	95	105.441	30.144	146.448	1.00	21.37
ATOM	1676	CE1	PHE	B	95	106.723	32.608	146.274	1.00	24.07
ATOM	1677	CE2	PHE	B	95	105.743	30.836	147.610	1.00	20.75
ATOM	1678	CZ	PHE	B	95	106.386	32.072	147.530	1.00	23.23
ATOM	1679	C	PHE	B	95	105.425	27.707	142.804	1.00	25.56
ATOM	1680	O	PHE	B	95	105.349	28.188	141.670	1.00	27.02
ATOM	1681	N	GLU	B	96	104.991	26.489	143.089	1.00	26.35
ATOM	1682	CA	GLU	B	96	104.359	25.706	142.056	1.00	27.18
ATOM	1683	CB	GLU	B	96	104.443	24.212	142.361	1.00	26.72
ATOM	1684	CG	GLU	B	96	103.867	23.337	141.254	1.00	26.24
ATOM	1685	CD	GLU	B	96	103.691	21.901	141.685	1.00	28.35
ATOM	1686	OE1	GLU	B	96	103.162	21.678	142.795	1.00	30.76
ATOM	1687	OE2	GLU	B	96	104.064	20.988	140.920	1.00	31.23
ATOM	1688	C	GLU	B	96	102.909	26.158	142.020	1.00	28.96
ATOM	1689	O	GLU	B	96	102.167	26.018	142.993	1.00	31.23
ATOM	1690	N	ARG	B	97	102.509	26.726	140.897	1.00	29.93
ATOM	1691	CA	ARG	B	97	101.148	27.187	140.751	1.00	29.36
ATOM	1692	CB	ARG	B	97	101.105	28.718	140.754	1.00	32.52
ATOM	1693	CG	ARG	B	97	99.740	29.288	140.426	1.00	35.07
ATOM	1694	CD	ARG	B	97	99.770	30.797	140.343	1.00	41.18
ATOM	1695	NE	ARG	B	97	98.453	31.329	139.994	1.00	47.09
ATOM	1696	CZ	ARG	B	97	97.402	31.326	140.812	1.00	48.95
ATOM	1697	NH1	ARG	B	97	97.520	30.823	142.036	1.00	50.33
ATOM	1698	NH2	ARG	B	97	96.231	31.812	140.405	1.00	48.08
ATOM	1699	C	ARG	B	97	100.526	26.663	139.471	1.00	27.73
ATOM	1700	O	ARG	B	97	101.104	26.783	138.392	1.00	26.45
ATOM	1701	N	LEU	B	98	99.350	26.059	139.611	1.00	27.65
ATOM	1702	CA	LEU	B	98	98.585	25.555	138.473	1.00	27.40
ATOM	1703	CB	LEU	B	98	97.707	24.376	138.909	1.00	23.68
ATOM	1704	CG	LEU	B	98	96.669	23.882	137.894	1.00	21.58

Table 1

ATOM	1705	CD1	LEU	B	98	97.341	23.545	136.586	1.00	20.86
ATOM	1706	CD2	LEU	B	98	95.952	22.658	138.444	1.00	20.79
ATOM	1707	C	LEU	B	98	97.720	26.737	137.990	1.00	27.81
ATOM	1708	O	LEU	B	98	96.682	27.043	138.571	1.00	29.38
ATOM	1709	N	GLU	B	99	98.177	27.409	136.940	1.00	28.61
ATOM	1710	CA	GLU	B	99	97.493	28.572	136.394	1.00	28.93
ATOM	1711	CB	GLU	B	99	98.395	29.219	135.349	1.00	28.89
ATOM	1712	CG	GLU	B	99	99.753	29.616	135.912	1.00	28.08
ATOM	1713	CD	GLU	B	99	99.671	30.824	136.832	1.00	31.83
ATOM	1714	OE1	GLU	B	99	100.684	31.141	137.499	1.00	30.76
ATOM	1715	OE2	GLU	B	99	98.589	31.463	136.878	1.00	33.87
ATOM	1716	C	GLU	B	99	96.128	28.243	135.810	1.00	29.29
ATOM	1717	O	GLU	B	99	95.766	27.069	135.659	1.00	28.75
ATOM	1718	N	SER	B	100	95.374	29.289	135.483	1.00	29.92
ATOM	1719	CA	SER	B	100	94.028	29.126	134.939	1.00	30.61
ATOM	1720	CB	SER	B	100	93.283	30.467	134.926	1.00	28.25
ATOM	1721	OG	SER	B	100	93.858	31.384	134.009	1.00	24.98
ATOM	1722	C	SER	B	100	94.002	28.527	133.538	1.00	32.21
ATOM	1723	O	SER	B	100	92.957	28.065	133.087	1.00	34.96
ATOM	1724	N	ASN	B	101	95.141	28.527	132.853	1.00	32.04
ATOM	1725	CA	ASN	B	101	95.221	27.972	131.503	1.00	30.78
ATOM	1726	CB	ASN	B	101	96.303	28.694	130.704	1.00	29.70
ATOM	1727	CG	ASN	B	101	97.627	28.688	131.416	1.00	28.96
ATOM	1728	OD1	ASN	B	101	97.688	28.381	132.603	1.00	29.57
ATOM	1729	ND2	ASN	B	101	98.695	29.036	130.708	1.00	28.13
ATOM	1730	C	ASN	B	101	95.541	26.490	131.559	1.00	29.90
ATOM	1731	O	ASN	B	101	95.611	25.823	130.528	1.00	31.66
ATOM	1732	N	ASN	B	102	95.740	25.988	132.772	1.00	28.75
ATOM	1733	CA	ASN	B	102	96.054	24.580	133.010	1.00	27.81
ATOM	1734	CB	ASN	B	102	95.143	23.695	132.193	1.00	25.64
ATOM	1735	CG	ASN	B	102	93.733	23.887	132.576	1.00	25.66
ATOM	1736	OD1	ASN	B	102	93.384	23.686	133.737	1.00	27.29
ATOM	1737	ND2	ASN	B	102	92.901	24.313	131.627	1.00	27.10
ATOM	1738	C	ASN	B	102	97.494	24.199	132.779	1.00	26.40
ATOM	1739	O	ASN	B	102	97.812	23.049	132.472	1.00	24.65
ATOM	1740	N	TYR	B	103	98.358	25.192	132.937	1.00	26.13
ATOM	1741	CA	TYR	B	103	99.795	25.017	132.810	1.00	26.46
ATOM	1742	CB	TYR	B	103	100.380	25.977	131.781	1.00	26.68
ATOM	1743	CG	TYR	B	103	100.227	25.513	130.360	1.00	28.89
ATOM	1744	CD1	TYR	B	103	101.046	24.506	129.852	1.00	29.01
ATOM	1745	CE1	TYR	B	103	100.901	24.047	128.551	1.00	31.54
ATOM	1746	CD2	TYR	B	103	99.246	26.059	129.528	1.00	27.75
ATOM	1747	CE2	TYR	B	103	99.084	25.604	128.214	1.00	30.75
ATOM	1748	CZ	TYR	B	103	99.918	24.596	127.728	1.00	32.28
ATOM	1749	OH	TYR	B	103	99.787	24.135	126.429	1.00	32.13
ATOM	1750	C	TYR	B	103	100.355	25.382	134.163	1.00	26.02
ATOM	1751	O	TYR	B	103	99.770	26.184	134.880	1.00	27.29
ATOM	1752	N	ASN	B	104	101.485	24.793	134.511	1.00	24.28
ATOM	1753	CA	ASN	B	104	102.130	25.083	135.773	1.00	22.21
ATOM	1754	CB	ASN	B	104	102.798	23.831	136.329	1.00	23.81
ATOM	1755	CG	ASN	B	104	101.841	22.940	137.065	1.00	22.38
ATOM	1756	OD1	ASN	B	104	100.634	23.190	137.090	1.00	24.27
ATOM	1757	ND2	ASN	B	104	102.372	21.887	137.674	1.00	19.93
ATOM	1758	C	ASN	B	104	103.200	26.123	135.559	1.00	21.77
ATOM	1759	O	ASN	B	104	103.741	26.258	134.466	1.00	18.48

Table 1

ATOM	1760	N	THR	B	105	103.505	26.856	136.620	1.00	23.55
ATOM	1761	CA	THR	B	105	104.555	27.862	136.580	1.00	25.40
ATOM	1762	CB	THR	B	105	103.987	29.298	136.497	1.00	23.35
ATOM	1763	OG1	THR	B	105	103.069	29.521	137.576	1.00	24.27
ATOM	1764	CG2	THR	B	105	103.293	29.509	135.178	1.00	19.24
ATOM	1765	C	THR	B	105	105.380	27.713	137.851	1.00	26.45
ATOM	1766	O	THR	B	105	104.847	27.446	138.924	1.00	27.70
ATOM	1767	N	TYR	B	106	106.685	27.882	137.727	1.00	27.80
ATOM	1768	CA	TYR	B	106	107.554	27.755	138.881	1.00	28.15
ATOM	1769	CB	TYR	B	106	108.503	26.592	138.646	1.00	24.96
ATOM	1770	CG	TYR	B	106	107.735	25.288	138.599	1.00	23.60
ATOM	1771	CD1	TYR	B	106	107.488	24.566	139.769	1.00	21.27
ATOM	1772	CE1	TYR	B	106	106.742	23.395	139.750	1.00	21.89
ATOM	1773	CD2	TYR	B	106	107.208	24.800	137.394	1.00	21.41
ATOM	1774	CE2	TYR	B	106	106.456	23.626	137.360	1.00	21.03
ATOM	1775	CZ	TYR	B	106	106.229	22.925	138.548	1.00	24.06
ATOM	1776	OH	TYR	B	106	105.515	21.741	138.546	1.00	23.62
ATOM	1777	C	TYR	B	106	108.280	29.061	139.145	1.00	30.41
ATOM	1778	O	TYR	B	106	109.245	29.426	138.469	1.00	31.45
ATOM	1779	N	ARG	B	107	107.780	29.768	140.149	1.00	31.96
ATOM	1780	CA	ARG	B	107	108.312	31.061	140.535	1.00	32.79
ATOM	1781	CB	ARG	B	107	107.152	31.979	140.912	1.00	32.00
ATOM	1782	CG	ARG	B	107	107.533	33.406	141.148	1.00	33.23
ATOM	1783	CD	ARG	B	107	106.334	34.300	140.910	1.00	35.90
ATOM	1784	NE	ARG	B	107	105.191	33.986	141.771	1.00	40.00
ATOM	1785	CZ	ARG	B	107	105.077	34.354	143.045	1.00	39.85
ATOM	1786	NH1	ARG	B	107	106.034	35.054	143.638	1.00	38.97
ATOM	1787	NH2	ARG	B	107	103.996	34.019	143.729	1.00	41.38
ATOM	1788	C	ARG	B	107	109.274	30.938	141.696	1.00	33.01
ATOM	1789	O	ARG	B	107	108.957	30.282	142.690	1.00	32.53
ATOM	1790	N	SER	B	108	110.441	31.571	141.558	1.00	34.47
ATOM	1791	CA	SER	B	108	111.481	31.557	142.595	1.00	36.46
ATOM	1792	CB	SER	B	108	112.690	32.402	142.178	1.00	37.32
ATOM	1793	OG	SER	B	108	113.657	32.459	143.215	1.00	36.67
ATOM	1794	C	SER	B	108	110.947	32.111	143.898	1.00	36.91
ATOM	1795	O	SER	B	108	110.438	33.233	143.932	1.00	37.00
ATOM	1796	N	ARG	B	109	111.059	31.335	144.970	1.00	37.99
ATOM	1797	CA	ARG	B	109	110.564	31.808	146.249	1.00	40.27
ATOM	1798	CB	ARG	B	109	110.465	30.672	147.263	1.00	40.19
ATOM	1799	CG	ARG	B	109	109.690	31.068	148.511	1.00	41.08
ATOM	1800	CD	ARG	B	109	109.061	29.853	149.173	1.00	42.63
ATOM	1801	NE	ARG	B	109	110.060	28.944	149.723	1.00	44.24
ATOM	1802	CZ	ARG	B	109	110.484	28.960	150.984	1.00	45.28
ATOM	1803	NH1	ARG	B	109	109.993	29.843	151.848	1.00	46.59
ATOM	1804	NH2	ARG	B	109	111.402	28.084	151.379	1.00	45.30
ATOM	1805	C	ARG	B	109	111.485	32.895	146.769	1.00	42.63
ATOM	1806	O	ARG	B	109	111.067	33.741	147.570	1.00	43.11
ATOM	1807	N	LYS	B	110	112.736	32.890	146.308	1.00	43.86
ATOM	1808	CA	LYS	B	110	113.673	33.913	146.748	1.00	44.94
ATOM	1809	CB	LYS	B	110	115.098	33.364	146.858	1.00	46.17
ATOM	1810	CG	LYS	B	110	116.062	34.455	147.292	1.00	47.98
ATOM	1811	CD	LYS	B	110	117.294	33.939	147.986	1.00	50.45
ATOM	1812	CE	LYS	B	110	117.932	35.064	148.805	1.00	51.51
ATOM	1813	NZ	LYS	B	110	119.185	34.665	149.515	1.00	52.68
ATOM	1814	C	LYS	B	110	113.666	35.166	145.865	1.00	45.12

Table 1

ATOM	1815	O	LYS	B	110	113.757	36.278	146.375	1.00	45.84
ATOM	1816	N	TYR	B	111	113.559	34.992	144.553	1.00	45.15
ATOM	1817	CA	TYR	B	111	113.520	36.128	143.636	1.00	45.47
ATOM	1818	CB	TYR	B	111	114.595	35.945	142.570	1.00	44.77
ATOM	1819	CG	TYR	B	111	115.949	35.789	143.216	1.00	45.41
ATOM	1820	CD1	TYR	B	111	116.546	36.858	143.883	1.00	46.17
ATOM	1821	CE1	TYR	B	111	117.744	36.700	144.573	1.00	44.71
ATOM	1822	CD2	TYR	B	111	116.595	34.553	143.249	1.00	45.96
ATOM	1823	CE2	TYR	B	111	117.794	34.388	143.936	1.00	45.72
ATOM	1824	CZ	TYR	B	111	118.357	35.467	144.596	1.00	44.93
ATOM	1825	OH	TYR	B	111	119.524	35.317	145.296	1.00	45.11
ATOM	1826	C	TYR	B	111	112.114	36.172	143.056	1.00	46.44
ATOM	1827	O	TYR	B	111	111.892	36.091	141.848	1.00	48.14
ATOM	1828	N	THR	B	112	111.174	36.301	143.983	1.00	47.26
ATOM	1829	CA	THR	B	112	109.738	36.320	143.740	1.00	48.53
ATOM	1830	CB	THR	B	112	109.021	37.059	144.878	1.00	49.29
ATOM	1831	OG1	THR	B	112	109.774	38.227	145.246	1.00	49.98
ATOM	1832	CG2	THR	B	112	108.870	36.133	146.086	1.00	49.24
ATOM	1833	C	THR	B	112	109.133	36.786	142.422	1.00	48.60
ATOM	1834	O	THR	B	112	108.006	36.406	142.115	1.00	48.90
ATOM	1835	N	SER	B	113	109.839	37.594	141.638	1.00	48.32
ATOM	1836	CA	SER	B	113	109.263	38.035	140.369	1.00	46.93
ATOM	1837	CB	SER	B	113	109.375	39.548	140.241	1.00	45.36
ATOM	1838	OG	SER	B	113	110.696	39.952	140.511	1.00	48.70
ATOM	1839	C	SER	B	113	109.842	37.360	139.120	1.00	45.91
ATOM	1840	O	SER	B	113	109.622	37.831	138.005	1.00	46.93
ATOM	1841	N	TRP	B	114	110.570	36.260	139.295	1.00	43.86
ATOM	1842	CA	TRP	B	114	111.122	35.566	138.143	1.00	43.51
ATOM	1843	CB	TRP	B	114	112.641	35.650	138.130	1.00	47.61
ATOM	1844	CG	TRP	B	114	113.203	37.028	138.254	1.00	50.02
ATOM	1845	CD2	TRP	B	114	114.484	37.368	138.779	1.00	51.18
ATOM	1846	CE2	TRP	B	114	114.627	38.765	138.660	1.00	51.19
ATOM	1847	CE3	TRP	B	114	115.531	36.624	139.340	1.00	52.31
ATOM	1848	CD1	TRP	B	114	112.631	38.199	137.845	1.00	50.13
ATOM	1849	NE1	TRP	B	114	113.481	39.247	138.085	1.00	50.60
ATOM	1850	CZ2	TRP	B	114	115.772	39.434	139.081	1.00	51.87
ATOM	1851	CZ3	TRP	B	114	116.670	37.288	139.759	1.00	52.13
ATOM	1852	CH2	TRP	B	114	116.782	38.680	139.628	1.00	52.79
ATOM	1853	C	TRP	B	114	110.702	34.109	138.121	1.00	42.54
ATOM	1854	O	TRP	B	114	110.521	33.493	139.173	1.00	42.95
ATOM	1855	N	TYR	B	115	110.561	33.559	136.917	1.00	40.61
ATOM	1856	CA	TYR	B	115	110.139	32.170	136.740	1.00	39.09
ATOM	1857	CB	TYR	B	115	108.873	32.068	135.879	1.00	40.31
ATOM	1858	CG	TYR	B	115	107.669	32.872	136.301	1.00	39.72
ATOM	1859	CD1	TYR	B	115	107.651	34.250	136.156	1.00	39.96
ATOM	1860	CE1	TYR	B	115	106.527	34.992	136.490	1.00	40.25
ATOM	1861	CD2	TYR	B	115	106.522	32.242	136.799	1.00	39.15
ATOM	1862	CE2	TYR	B	115	105.393	32.975	137.135	1.00	37.77
ATOM	1863	CZ	TYR	B	115	105.402	34.353	136.979	1.00	39.46
ATOM	1864	OH	TYR	B	115	104.299	35.113	137.315	1.00	40.52
ATOM	1865	C	TYR	B	115	111.161	31.286	136.050	1.00	37.81
ATOM	1866	O	TYR	B	115	111.996	31.755	135.276	1.00	38.99
ATOM	1867	N	VAL	B	116	111.069	29.990	136.317	1.00	36.36
ATOM	1868	CA	VAL	B	116	111.929	29.032	135.645	1.00	36.77
ATOM	1869	CB	VAL	B	116	111.813	27.616	136.261	1.00	35.73

ATOM	1870	CG1	VAL	B	116	112.514	26.622	135.379	1.00	32.37
ATOM	1871	CG2	VAL	B	116	112.433	27.595	137.653	1.00	35.38
ATOM	1872	C	VAL	B	116	111.296	29.035	134.251	1.00	37.90
ATOM	1873	O	VAL	B	116	110.076	28.899	134.131	1.00	37.90
ATOM	1874	N	ALA	B	117	112.102	29.215	133.206	1.00	38.53
ATOM	1875	CA	ALA	B	117	111.563	29.264	131.847	1.00	37.77
ATOM	1876	CB	ALA	B	117	111.060	30.683	131.543	1.00	37.53
ATOM	1877	C	ALA	B	117	112.568	28.839	130.782	1.00	37.82
ATOM	1878	O	ALA	B	117	113.770	28.957	130.977	1.00	37.72
ATOM	1879	N	LEU	B	118	112.066	28.355	129.650	1.00	37.80
ATOM	1880	CA	LEU	B	118	112.925	27.930	128.558	1.00	37.19
ATOM	1881	CB	LEU	B	118	112.734	26.439	128.292	1.00	36.09
ATOM	1882	CG	LEU	B	118	113.087	25.465	129.422	1.00	35.69
ATOM	1883	CD1	LEU	B	118	112.965	24.001	128.912	1.00	31.91
ATOM	1884	CD2	LEU	B	118	114.497	25.764	129.928	1.00	31.08
ATOM	1885	C	LEU	B	118	112.631	28.712	127.281	1.00	38.86
ATOM	1886	O	LEU	B	118	111.471	28.991	126.969	1.00	39.01
ATOM	1887	N	LYS	B	119	113.689	29.062	126.551	1.00	40.20
ATOM	1888	CA	LYS	B	119	113.570	29.798	125.296	1.00	41.60
ATOM	1889	CB	LYS	B	119	114.916	30.418	124.914	1.00	44.91
ATOM	1890	CG	LYS	B	119	115.443	31.523	125.817	1.00	46.42
ATOM	1891	CD	LYS	B	119	116.928	31.754	125.510	1.00	48.54
ATOM	1892	CE	LYS	B	119	117.424	33.128	125.955	1.00	49.92
ATOM	1893	NZ	LYS	B	119	116.958	34.230	125.056	1.00	51.60
ATOM	1894	C	LYS	B	119	113.147	28.852	124.174	1.00	42.37
ATOM	1895	O	LYS	B	119	113.285	27.626	124.296	1.00	40.67
ATOM	1896	N	ARG	B	120	112.656	29.436	123.078	1.00	44.22
ATOM	1897	CA	ARG	B	120	112.203	28.687	121.906	1.00	46.02
ATOM	1898	CB	ARG	B	120	111.619	29.677	120.874	1.00	48.48
ATOM	1899	CG	ARG	B	120	110.660	30.706	121.512	1.00	54.41
ATOM	1900	CD	ARG	B	120	109.937	31.661	120.535	1.00	58.66
ATOM	1901	NE	ARG	B	120	108.765	31.067	119.876	1.00	63.50
ATOM	1902	CZ	ARG	B	120	107.764	31.765	119.330	1.00	65.20
ATOM	1903	NH1	ARG	B	120	107.778	33.094	119.368	1.00	64.73
ATOM	1904	NH2	ARG	B	120	106.754	31.138	118.724	1.00	65.86
ATOM	1905	C	ARG	B	120	113.384	27.882	121.323	1.00	45.52
ATOM	1906	O	ARG	B	120	113.198	26.924	120.562	1.00	44.84
ATOM	1907	N	THR	B	121	114.594	28.265	121.734	1.00	45.23
ATOM	1908	CA	THR	B	121	115.844	27.638	121.294	1.00	43.96
ATOM	1909	CB	THR	B	121	116.992	28.637	121.360	1.00	42.69
ATOM	1910	OG1	THR	B	121	117.419	28.774	122.723	1.00	41.94
ATOM	1911	CG2	THR	B	121	116.534	29.992	120.844	1.00	42.10
ATOM	1912	C	THR	B	121	116.277	26.426	122.124	1.00	44.14
ATOM	1913	O	THR	B	121	117.222	25.723	121.759	1.00	43.98
ATOM	1914	N	GLY	B	122	115.611	26.198	123.252	1.00	44.98
ATOM	1915	CA	GLY	B	122	115.970	25.069	124.093	1.00	45.39
ATOM	1916	C	GLY	B	122	116.937	25.422	125.214	1.00	45.75
ATOM	1917	O	GLY	B	122	117.535	24.541	125.828	1.00	45.93
ATOM	1918	N	GLN	B	123	117.099	26.707	125.492	1.00	45.97
ATOM	1919	CA	GLN	B	123	118.001	27.116	126.555	1.00	47.84
ATOM	1920	CB	GLN	B	123	119.074	28.046	126.012	1.00	51.23
ATOM	1921	CG	GLN	B	123	119.943	27.391	124.991	1.00	56.90
ATOM	1922	CD	GLN	B	123	120.689	28.407	124.187	1.00	61.76
ATOM	1923	OE1	GLN	B	123	120.084	29.321	123.616	1.00	63.94
ATOM	1924	NE2	GLN	B	123	122.015	28.266	124.129	1.00	63.33

Table I

ATOM	1925	C	GLN	B	123	117.209	27.829	127.618	1.00	46.32
ATOM	1926	O	GLN	B	123	116.221	28.495	127.310	1.00	46.58
ATOM	1927	N	TYR	B	124	117.635	27.701	128.869	1.00	43.86
ATOM	1928	CA	TYR	B	124	116.907	28.360	129.927	1.00	42.11
ATOM	1929	CB	TYR	B	124	117.518	28.026	131.294	1.00	41.58
ATOM	1930	CG	TYR	B	124	118.722	28.851	131.700	1.00	42.91
ATOM	1931	CD1	TYR	B	124	118.594	30.204	132.041	1.00	42.19
ATOM	1932	CE1	TYR	B	124	119.697	30.951	132.453	1.00	42.26
ATOM	1933	CD2	TYR	B	124	119.989	28.269	131.781	1.00	42.35
ATOM	1934	CE2	TYR	B	124	121.096	29.005	132.193	1.00	41.60
ATOM	1935	CZ	TYR	B	124	120.946	30.339	132.527	1.00	42.23
ATOM	1936	OH	TYR	B	124	122.046	31.048	132.944	1.00	41.91
ATOM	1937	C	TYR	B	124	116.889	29.866	129.672	1.00	41.35
ATOM	1938	O	TYR	B	124	117.800	30.423	129.065	1.00	40.98
ATOM	1939	N	LYS	B	125	115.821	30.507	130.126	1.00	40.27
ATOM	1940	CA	LYS	B	125	115.643	31.934	129.978	1.00	37.43
ATOM	1941	CB	LYS	B	125	114.227	32.210	129.493	1.00	37.31
ATOM	1942	CG	LYS	B	125	113.893	33.657	129.377	1.00	37.20
ATOM	1943	CD	LYS	B	125	112.614	33.812	128.619	1.00	39.57
ATOM	1944	CE	LYS	B	125	112.257	35.271	128.448	1.00	41.27
ATOM	1945	NZ	LYS	B	125	111.167	35.402	127.445	1.00	43.99
ATOM	1946	C	LYS	B	125	115.891	32.583	131.331	1.00	36.74
ATOM	1947	O	LYS	B	125	115.408	32.110	132.368	1.00	35.41
ATOM	1948	N	LEU	B	126	116.662	33.662	131.312	1.00	36.70
ATOM	1949	CA	LEU	B	126	117.005	34.383	132.522	1.00	36.52
ATOM	1950	CB	LEU	B	126	117.877	35.586	132.186	1.00	37.09
ATOM	1951	CG	LEU	B	126	119.375	35.336	132.036	1.00	37.50
ATOM	1952	CD1	LEU	B	126	120.054	36.676	131.792	1.00	36.55
ATOM	1953	CD2	LEU	B	126	119.933	34.674	133.298	1.00	36.86
ATOM	1954	C	LEU	B	126	115.802	34.859	133.298	1.00	36.94
ATOM	1955	O	LEU	B	126	114.878	35.432	132.732	1.00	38.21
ATOM	1956	N	GLY	B	127	115.823	34.635	134.603	1.00	36.87
ATOM	1957	CA	GLY	B	127	114.716	35.075	135.417	1.00	39.12
ATOM	1958	C	GLY	B	127	114.457	36.539	135.139	1.00	40.81
ATOM	1959	O	GLY	B	127	113.333	36.949	134.886	1.00	42.21
ATOM	1960	N	SER	B	128	115.515	37.332	135.174	1.00	42.67
ATOM	1961	CA	SER	B	128	115.409	38.761	134.929	1.00	44.81
ATOM	1962	CB	SER	B	128	116.826	39.362	134.873	1.00	46.60
ATOM	1963	OG	SER	B	128	117.725	38.527	134.145	1.00	48.48
ATOM	1964	C	SER	B	128	114.618	39.107	133.658	1.00	44.99
ATOM	1965	O	SER	B	128	114.206	40.256	133.465	1.00	44.55
ATOM	1966	N	LYS	B	129	114.393	38.113	132.803	1.00	45.58
ATOM	1967	CA	LYS	B	129	113.674	38.336	131.552	1.00	46.27
ATOM	1968	CB	LYS	B	129	114.514	37.864	130.358	1.00	46.90
ATOM	1969	CG	LYS	B	129	115.839	38.592	130.121	1.00	49.02
ATOM	1970	CD	LYS	B	129	116.341	38.312	128.697	1.00	49.89
ATOM	1971	CE	LYS	B	129	116.306	36.810	128.359	1.00	50.63
ATOM	1972	NZ	LYS	B	129	116.042	36.545	126.905	1.00	49.75
ATOM	1973	C	LYS	B	129	112.311	37.646	131.461	1.00	46.33
ATOM	1974	O	LYS	B	129	111.671	37.690	130.404	1.00	46.91
ATOM	1975	N	THR	B	130	111.860	37.018	132.544	1.00	44.73
ATOM	1976	CA	THR	B	130	110.581	36.307	132.517	1.00	43.35
ATOM	1977	CB	THR	B	130	110.621	35.062	133.386	1.00	41.73
ATOM	1978	OG1	THR	B	130	110.608	35.455	134.763	1.00	39.55
ATOM	1979	CG2	THR	B	130	111.874	34.249	133.090	1.00	41.36

Table 1

ATOM	1980	C	THR	B	130	109.385	37.114	132.991	1.00	43.61
ATOM	1981	O	THR	B	130	109.473	37.861	133.959	1.00	43.97
ATOM	1982	N	GLY	B	131	108.259	36.927	132.314	1.00	43.39
ATOM	1983	CA	GLY	B	131	107.039	37.629	132.668	1.00	43.69
ATOM	1984	C	GLY	B	131	105.821	36.716	132.602	1.00	44.30
ATOM	1985	O	GLY	B	131	105.876	35.637	132.003	1.00	45.45
ATOM	1986	N	PRO	B	132	104.701	37.118	133.218	1.00	42.51
ATOM	1987	CD	PRO	B	132	104.560	38.310	134.066	1.00	40.46
ATOM	1988	CA	PRO	B	132	103.470	36.326	133.226	1.00	41.94
ATOM	1989	CB	PRO	B	132	102.560	37.119	134.155	1.00	42.03
ATOM	1990	CG	PRO	B	132	103.090	38.521	134.041	1.00	42.39
ATOM	1991	C	PRO	B	132	102.845	36.068	131.858	1.00	42.14
ATOM	1992	O	PRO	B	132	102.262	35.006	131.625	1.00	43.05
ATOM	1993	N	GLY	B	133	102.967	37.029	130.951	1.00	41.52
ATOM	1994	CA	GLY	B	133	102.398	36.844	129.632	1.00	40.35
ATOM	1995	C	GLY	B	133	103.299	36.031	128.728	1.00	39.56
ATOM	1996	O	GLY	B	133	103.087	35.995	127.526	1.00	41.25
ATOM	1997	N	GLN	B	134	104.293	35.361	129.298	1.00	38.32
ATOM	1998	CA	GLN	B	134	105.228	34.575	128.501	1.00	37.83
ATOM	1999	CB	GLN	B	134	106.643	34.795	129.015	1.00	36.88
ATOM	2000	CG	GLN	B	134	107.170	36.177	128.703	1.00	37.38
ATOM	2001	CD	GLN	B	134	108.506	36.441	129.351	1.00	37.57
ATOM	2002	OE1	GLN	B	134	109.404	35.600	129.301	1.00	38.74
ATOM	2003	NE2	GLN	B	134	108.651	37.614	129.960	1.00	34.92
ATOM	2004	C	GLN	B	134	104.969	33.079	128.378	1.00	38.13
ATOM	2005	O	GLN	B	134	104.701	32.387	129.362	1.00	39.42
ATOM	2006	N	LYS	B	135	105.084	32.595	127.146	1.00	37.17
ATOM	2007	CA	LYS	B	135	104.874	31.195	126.799	1.00	36.17
ATOM	2008	CB	LYS	B	135	104.796	31.095	125.273	1.00	35.42
ATOM	2009	CG	LYS	B	135	104.557	29.715	124.683	1.00	38.19
ATOM	2010	CD	LYS	B	135	104.243	29.862	123.193	1.00	40.23
ATOM	2011	CE	LYS	B	135	104.527	28.601	122.385	1.00	42.09
ATOM	2012	NZ	LYS	B	135	104.390	28.870	120.910	1.00	43.39
ATOM	2013	C	LYS	B	135	106.009	30.325	127.353	1.00	35.89
ATOM	2014	O	LYS	B	135	105.863	29.109	127.525	1.00	34.50
ATOM	2015	N	ALA	B	136	107.134	30.970	127.651	1.00	35.18
ATOM	2016	CA	ALA	B	136	108.310	30.278	128.170	1.00	34.66
ATOM	2017	CB	ALA	B	136	109.556	31.186	128.044	1.00	34.18
ATOM	2018	C	ALA	B	136	108.167	29.807	129.613	1.00	34.08
ATOM	2019	O	ALA	B	136	108.778	28.817	129.996	1.00	34.88
ATOM	2020	N	ILE	B	137	107.362	30.503	130.412	1.00	33.51
ATOM	2021	CA	ILE	B	137	107.206	30.131	131.813	1.00	31.04
ATOM	2022	CB	ILE	B	137	106.839	31.333	132.687	1.00	30.89
ATOM	2023	CG2	ILE	B	137	107.918	32.402	132.550	1.00	30.26
ATOM	2024	CG1	ILE	B	137	105.438	31.848	132.307	1.00	30.69
ATOM	2025	CD1	ILE	B	137	104.692	32.539	133.443	1.00	26.19
ATOM	2026	C	ILE	B	137	106.176	29.064	132.071	1.00	29.74
ATOM	2027	O	ILE	B	137	106.022	28.617	133.206	1.00	31.83
ATOM	2028	N	LEU	B	138	105.478	28.642	131.030	1.00	28.62
ATOM	2029	CA	LEU	B	138	104.451	27.622	131.194	1.00	28.23
ATOM	2030	CB	LEU	B	138	103.284	27.930	130.259	1.00	29.47
ATOM	2031	CG	LEU	B	138	102.865	29.413	130.203	1.00	30.75
ATOM	2032	CD1	LEU	B	138	101.796	29.566	129.128	1.00	29.77
ATOM	2033	CD2	LEU	B	138	102.351	29.906	131.561	1.00	27.45
ATOM	2034	C	LEU	B	138	104.954	26.198	130.960	1.00	26.47

Table I

ATOM	2035	O	LEU	B	138	105.544	25.903	129.923	1.00	25.23
ATOM	2036	N	PHE	B	139	104.725	25.326	131.941	1.00	25.68
ATOM	2037	CA	PHE	B	139	105.131	23.923	131.846	1.00	25.87
ATOM	2038	CB	PHE	B	139	106.234	23.569	132.859	1.00	23.51
ATOM	2039	CG	PHE	B	139	107.506	24.311	132.656	1.00	21.66
ATOM	2040	CD1	PHE	B	139	107.580	25.683	132.927	1.00	21.05
ATOM	2041	CD2	PHE	B	139	108.625	23.657	132.148	1.00	20.83
ATOM	2042	CE1	PHE	B	139	108.744	26.393	132.693	1.00	18.61
ATOM	2043	CE2	PHE	B	139	109.801	24.358	131.908	1.00	19.33
ATOM	2044	CZ	PHE	B	139	109.859	25.732	132.181	1.00	20.03
ATOM	2045	C	PHE	B	139	103.951	23.010	132.110	1.00	26.53
ATOM	2046	O	PHE	B	139	102.993	23.380	132.786	1.00	27.10
ATOM	2047	N	LEU	B	140	104.050	21.800	131.588	1.00	28.27
ATOM	2048	CA	LEU	B	140	103.017	20.802	131.754	1.00	29.97
ATOM	2049	CB	LEU	B	140	102.468	20.429	130.382	1.00	30.53
ATOM	2050	CG	LEU	B	140	101.082	19.808	130.334	1.00	32.58
ATOM	2051	CD1	LEU	B	140	100.063	20.784	130.918	1.00	33.58
ATOM	2052	CD2	LEU	B	140	100.746	19.475	128.892	1.00	34.10
ATOM	2053	C	LEU	B	140	103.665	19.587	132.409	1.00	30.35
ATOM	2054	O	LEU	B	140	104.602	19.021	131.860	1.00	31.65
ATOM	2055	N	PRO	B	141	103.192	19.188	133.603	1.00	31.28
ATOM	2056	CD	PRO	B	141	102.215	19.891	134.457	1.00	31.64
ATOM	2057	CA	PRO	B	141	103.753	18.026	134.306	1.00	30.12
ATOM	2058	CB	PRO	B	141	103.109	18.105	135.693	1.00	29.44
ATOM	2059	CG	PRO	B	141	102.705	19.544	135.838	1.00	29.32
ATOM	2060	C	PRO	B	141	103.360	16.747	133.590	1.00	30.75
ATOM	2061	O	PRO	B	141	102.237	16.614	133.121	1.00	30.24
ATOM	2062	N	MET	B	142	104.282	15.801	133.509	1.00	33.53
ATOM	2063	CA	MET	B	142	104.011	14.533	132.847	1.00	35.21
ATOM	2064	CB	MET	B	142	104.585	14.543	131.428	1.00	35.75
ATOM	2065	CG	MET	B	142	103.932	15.558	130.502	1.00	40.96
ATOM	2066	SD	MET	B	142	104.611	15.593	128.806	1.00	48.60
ATOM	2067	CE	MET	B	142	103.935	14.039	128.108	1.00	46.52
ATOM	2068	C	MET	B	142	104.626	13.403	133.654	1.00	36.87
ATOM	2069	O	MET	B	142	105.849	13.302	133.791	1.00	36.47
ATOM	2070	N	SER	B	143	103.752	12.568	134.196	1.00	39.98
ATOM	2071	CA	SER	B	143	104.128	11.416	135.005	1.00	44.38
ATOM	2072	CB	SER	B	143	102.893	10.545	135.233	1.00	46.66
ATOM	2073	OG	SER	B	143	102.443	9.997	133.993	1.00	45.56
ATOM	2074	C	SER	B	143	105.188	10.565	134.310	1.00	46.01
ATOM	2075	O	SER	B	143	105.105	10.348	133.098	1.00	45.47
ATOM	2076	N	ALA	B	144	106.167	10.080	135.082	1.00	47.58
ATOM	2077	CA	ALA	B	144	107.235	9.220	134.557	1.00	47.58
ATOM	2078	CB	ALA	B	144	108.488	10.044	134.232	1.00	45.10
ATOM	2079	C	ALA	B	144	107.568	8.132	135.575	1.00	48.22
ATOM	2080	O	ALA	B	144	107.809	6.990	135.125	1.00	50.48
ATOM	2081	CB	MET	C	149	100.101	52.077	93.481	1.00	65.25
ATOM	2082	CG	MET	C	149	98.567	51.932	93.495	1.00	67.19
ATOM	2083	SD	MET	C	149	97.646	53.284	92.696	1.00	68.98
ATOM	2084	CE	MET	C	149	97.301	52.545	91.082	1.00	67.30
ATOM	2085	C	MET	C	149	99.985	53.283	95.664	1.00	60.59
ATOM	2086	O	MET	C	149	99.450	52.273	96.122	1.00	59.30
ATOM	2087	N	MET	C	149	102.131	53.199	94.388	1.00	62.84
ATOM	2088	CA	MET	C	149	100.638	53.271	94.282	1.00	62.68
ATOM	2089	N	PRO	C	150	100.005	54.441	96.338	1.00	58.42

Table 1

ATOM	2090	CD	PRO	C	150	100.461	55.734	95.798	1.00	57.88
ATOM	2091	CA	PRO	C	150	99.424	54.610	97.675	1.00	56.45
ATOM	2092	CB	PRO	C	150	99.456	56.126	97.873	1.00	57.14
ATOM	2093	CG	PRO	C	150	100.633	56.551	97.044	1.00	57.64
ATOM	2094	C	PRO	C	150	98.005	54.048	97.816	1.00	53.83
ATOM	2095	O	PRO	C	150	97.107	54.416	97.055	1.00	53.21
ATOM	2096	N	VAL	C	151	97.816	53.165	98.796	1.00	50.88
ATOM	2097	CA	VAL	C	151	96.517	52.557	99.063	1.00	47.57
ATOM	2098	CB	VAL	C	151	96.416	51.143	98.490	1.00	48.19
ATOM	2099	CG1	VAL	C	151	95.068	50.539	98.847	1.00	48.29
ATOM	2100	CG2	VAL	C	151	96.594	51.184	96.983	1.00	50.20
ATOM	2101	C	VAL	C	151	96.272	52.448	100.554	1.00	45.11
ATOM	2102	O	VAL	C	151	97.118	51.951	101.287	1.00	43.01
ATOM	2103	N	ALA	C	152	95.110	52.927	100.993	1.00	44.71
ATOM	2104	CA	ALA	C	152	94.723	52.868	102.399	1.00	42.52
ATOM	2105	CB	ALA	C	152	93.535	53.769	102.656	1.00	40.04
ATOM	2106	C	ALA	C	152	94.359	51.418	102.712	1.00	41.56
ATOM	2107	O	ALA	C	152	93.933	50.671	101.827	1.00	41.60
ATOM	2108	N	PRO	C	153	94.526	50.995	103.974	1.00	40.07
ATOM	2109	CD	PRO	C	153	95.014	51.703	105.165	1.00	39.42
ATOM	2110	CA	PRO	C	153	94.186	49.607	104.289	1.00	38.59
ATOM	2111	CB	PRO	C	153	94.527	49.492	105.776	1.00	39.06
ATOM	2112	CG	PRO	C	153	94.411	50.890	106.270	1.00	41.48
ATOM	2113	C	PRO	C	153	92.747	49.217	103.964	1.00	37.37
ATOM	2114	O	PRO	C	153	91.816	50.015	104.083	1.00	38.28
ATOM	2115	N	TYR	C	154	92.579	47.981	103.522	1.00	35.32
ATOM	2116	CA	TYR	C	154	91.266	47.474	103.184	1.00	33.69
ATOM	2117	CB	TYR	C	154	90.978	47.693	101.702	1.00	32.71
ATOM	2118	CG	TYR	C	154	91.927	46.970	100.783	1.00	34.21
ATOM	2119	CD1	TYR	C	154	93.190	47.490	100.492	1.00	34.37
ATOM	2120	CE1	TYR	C	154	94.079	46.795	99.663	1.00	34.30
ATOM	2121	CD2	TYR	C	154	91.576	45.743	100.228	1.00	34.12
ATOM	2122	CE2	TYR	C	154	92.453	45.044	99.411	1.00	33.65
ATOM	2123	CZ	TYR	C	154	93.698	45.570	99.129	1.00	34.17
ATOM	2124	OH	TYR	C	154	94.547	44.866	98.308	1.00	34.07
ATOM	2125	C	TYR	C	154	91.185	45.986	103.517	1.00	32.85
ATOM	2126	O	TYR	C	154	92.190	45.273	103.508	1.00	30.45
ATOM	2127	N	TRP	C	155	89.981	45.523	103.814	1.00	32.07
ATOM	2128	CA	TRP	C	155	89.775	44.128	104.156	1.00	31.61
ATOM	2129	CB	TRP	C	155	88.371	43.940	104.721	1.00	27.53
ATOM	2130	CG	TRP	C	155	88.090	44.839	105.865	1.00	21.45
ATOM	2131	CD2	TRP	C	155	88.848	44.946	107.074	1.00	18.68
ATOM	2132	CE2	TRP	C	155	88.212	45.910	107.881	1.00	16.98
ATOM	2133	CE3	TRP	C	155	90.005	44.319	107.553	1.00	14.94
ATOM	2134	CD1	TRP	C	155	87.059	45.714	105.978	1.00	19.22
ATOM	2135	NE1	TRP	C	155	87.122	46.365	107.188	1.00	19.31
ATOM	2136	CZ2	TRP	C	155	88.687	46.264	109.143	1.00	15.29
ATOM	2137	CZ3	TRP	C	155	90.478	44.670	108.803	1.00	13.39
ATOM	2138	CH2	TRP	C	155	89.819	45.634	109.586	1.00	14.61
ATOM	2139	C	TRP	C	155	89.938	43.229	102.940	1.00	33.45
ATOM	2140	O	TRP	C	155	89.303	43.450	101.909	1.00	33.14
ATOM	2141	N	THR	C	156	90.782	42.209	103.071	1.00	35.38
ATOM	2142	CA	THR	C	156	90.996	41.265	101.985	1.00	36.52
ATOM	2143	CB	THR	C	156	92.456	40.730	101.936	1.00	33.61
ATOM	2144	OG1	THR	C	156	92.835	40.196	103.207	1.00	32.46

Table 1

ATOM	2145	CG2	THR	C	156	93.401	41.832	101.566	1.00	34.29
ATOM	2146	C	THR	C	156	90.047	40.075	102.090	1.00	38.59
ATOM	2147	O	THR	C	156	89.808	39.388	101.103	1.00	38.35
ATOM	2148	N	SER	C	157	89.491	39.840	103.275	1.00	40.70
ATOM	2149	CA	SER	C	157	88.579	38.717	103.466	1.00	43.38
ATOM	2150	CB	SER	C	157	89.344	37.529	104.044	1.00	43.82
ATOM	2151	OG	SER	C	157	90.408	37.166	103.185	1.00	45.77
ATOM	2152	C	SER	C	157	87.420	39.060	104.383	1.00	44.72
ATOM	2153	O	SER	C	157	87.261	38.476	105.450	1.00	45.26
ATOM	2154	N	PRO	C	158	86.580	40.006	103.970	1.00	46.25
ATOM	2155	CD	PRO	C	158	86.466	40.509	102.593	1.00	46.97
ATOM	2156	CA	PRO	C	158	85.429	40.426	104.774	1.00	46.67
ATOM	2157	CB	PRO	C	158	84.771	41.465	103.889	1.00	47.50
ATOM	2158	CG	PRO	C	158	85.000	40.879	102.520	1.00	48.42
ATOM	2159	C	PRO	C	158	84.491	39.267	105.075	1.00	47.02
ATOM	2160	O	PRO	C	158	83.680	39.332	106.001	1.00	46.75
ATOM	2161	N	GLU	C	159	84.605	38.212	104.272	1.00	48.26
ATOM	2162	CA	GLU	C	159	83.780	37.014	104.422	1.00	47.93
ATOM	2163	CB	GLU	C	159	84.023	36.060	103.250	1.00	48.14
ATOM	2164	C	GLU	C	159	84.116	36.300	105.725	1.00	47.69
ATOM	2165	O	GLU	C	159	83.256	35.678	106.347	1.00	48.83
ATOM	2166	N	LYS	C	160	85.380	36.395	106.127	1.00	46.16
ATOM	2167	CA	LYS	C	160	85.859	35.764	107.355	1.00	44.33
ATOM	2168	CB	LYS	C	160	87.342	35.382	107.208	1.00	41.06
ATOM	2169	C	LYS	C	160	85.686	36.662	108.587	1.00	42.94
ATOM	2170	O	LYS	C	160	86.342	36.456	109.604	1.00	42.81
ATOM	2171	N	MET	C	161	84.793	37.642	108.509	1.00	41.39
ATOM	2172	CA	MET	C	161	84.595	38.558	109.628	1.00	39.39
ATOM	2173	CB	MET	C	161	85.216	39.934	109.294	1.00	38.51
ATOM	2174	CG	MET	C	161	86.759	39.909	109.157	1.00	37.19
ATOM	2175	SD	MET	C	161	87.570	41.276	108.213	1.00	35.28
ATOM	2176	CE	MET	C	161	87.835	42.474	109.497	1.00	32.14
ATOM	2177	C	MET	C	161	83.128	38.711	110.002	1.00	38.73
ATOM	2178	O	MET	C	161	82.798	39.400	110.962	1.00	38.29
ATOM	2179	N	GLU	C	162	82.254	38.048	109.254	1.00	38.86
ATOM	2180	CA	GLU	C	162	80.812	38.108	109.503	1.00	38.59
ATOM	2181	CB	GLU	C	162	80.080	37.201	108.502	1.00	35.61
ATOM	2182	C	GLU	C	162	80.398	37.733	110.944	1.00	38.75
ATOM	2183	O	GLU	C	162	79.430	38.274	111.487	1.00	39.79
ATOM	2184	N	LYS	C	163	81.126	36.815	111.568	1.00	38.04
ATOM	2185	CA	LYS	C	163	80.793	36.386	112.926	1.00	36.88
ATOM	2186	CB	LYS	C	163	81.329	34.972	113.155	1.00	37.78
ATOM	2187	CG	LYS	C	163	81.010	34.345	114.504	1.00	37.86
ATOM	2188	CD	LYS	C	163	81.898	33.115	114.723	1.00	37.39
ATOM	2189	CE	LYS	C	163	82.049	32.836	116.206	1.00	41.05
ATOM	2190	NZ	LYS	C	163	83.124	31.856	116.549	1.00	43.85
ATOM	2191	C	LYS	C	163	81.369	37.344	113.959	1.00	36.41
ATOM	2192	O	LYS	C	163	82.474	37.129	114.464	1.00	38.35
ATOM	2193	N	LYS	C	164	80.618	38.399	114.271	1.00	34.77
ATOM	2194	CA	LYS	C	164	81.061	39.405	115.233	1.00	33.48
ATOM	2195	CB	LYS	C	164	80.155	40.645	115.153	1.00	31.00
ATOM	2196	C	LYS	C	164	81.141	38.879	116.677	1.00	33.76
ATOM	2197	O	LYS	C	164	82.067	39.239	117.410	1.00	34.50
ATOM	2198	N	LEU	C	165	80.192	38.026	117.081	1.00	33.68
ATOM	2199	CA	LEU	C	165	80.182	37.450	118.435	1.00	31.67

Table I

ATOM	2200	CB	LEU	C	165	78.764	37.376	118.989	1.00	32.15
ATOM	2201	CG	LEU	C	165	78.678	36.482	120.242	1.00	32.85
ATOM	2202	CD1	LEU	C	165	79.467	37.102	121.383	1.00	30.15
ATOM	2203	CD2	LEU	C	165	77.244	36.289	120.648	1.00	32.03
ATOM	2204	C	LEU	C	165	80.778	36.046	118.571	1.00	31.11
ATOM	2205	O	LEU	C	165	80.331	35.112	117.914	1.00	28.78
ATOM	2206	N	HIS	C	166	81.766	35.908	119.454	1.00	32.82
ATOM	2207	CA	HIS	C	166	82.404	34.618	119.736	1.00	33.88
ATOM	2208	CB	HIS	C	166	83.919	34.710	119.632	1.00	35.77
ATOM	2209	CG	HIS	C	166	84.413	34.914	118.243	1.00	41.33
ATOM	2210	CD2	HIS	C	166	85.227	34.159	117.469	1.00	43.37
ATOM	2211	ND1	HIS	C	166	84.069	36.015	117.487	1.00	42.96
ATOM	2212	CE1	HIS	C	166	84.651	35.930	116.303	1.00	44.52
ATOM	2213	NE2	HIS	C	166	85.360	34.814	116.267	1.00	45.66
ATOM	2214	C	HIS	C	166	82.068	34.159	121.151	1.00	33.19
ATOM	2215	O	HIS	C	166	82.627	34.669	122.132	1.00	30.45
ATOM	2216	N	ALA	C	167	81.152	33.198	121.249	1.00	32.79
ATOM	2217	CA	ALA	C	167	80.745	32.641	122.534	1.00	33.37
ATOM	2218	CB	ALA	C	167	79.227	32.558	122.627	1.00	32.85
ATOM	2219	C	ALA	C	167	81.352	31.252	122.595	1.00	33.26
ATOM	2220	O	ALA	C	167	81.205	30.459	121.654	1.00	32.87
ATOM	2221	N	VAL	C	168	82.027	30.955	123.702	1.00	32.58
ATOM	2222	CA	VAL	C	168	82.683	29.669	123.849	1.00	31.16
ATOM	2223	CB	VAL	C	168	84.114	29.747	123.277	1.00	30.30
ATOM	2224	CG1	VAL	C	168	84.071	30.079	121.815	1.00	29.14
ATOM	2225	CG2	VAL	C	168	84.911	30.820	124.018	1.00	29.56
ATOM	2226	C	VAL	C	168	82.794	29.160	125.283	1.00	30.45
ATOM	2227	O	VAL	C	168	82.688	29.921	126.245	1.00	29.08
ATOM	2228	N	PRO	C	169	82.971	27.842	125.436	1.00	30.30
ATOM	2229	CD	PRO	C	169	82.654	26.785	124.457	1.00	28.93
ATOM	2230	CA	PRO	C	169	83.110	27.285	126.781	1.00	30.64
ATOM	2231	CB	PRO	C	169	82.783	25.806	126.581	1.00	28.08
ATOM	2232	CG	PRO	C	169	83.173	25.558	125.144	1.00	28.90
ATOM	2233	C	PRO	C	169	84.562	27.535	127.237	1.00	32.73
ATOM	2234	O	PRO	C	169	85.511	27.347	126.458	1.00	34.04
ATOM	2235	N	ALA	C	170	84.725	27.979	128.482	1.00	32.44
ATOM	2236	CA	ALA	C	170	86.039	28.261	129.046	1.00	31.35
ATOM	2237	CB	ALA	C	170	85.928	28.414	130.554	1.00	31.49
ATOM	2238	C	ALA	C	170	87.053	27.175	128.712	1.00	31.45
ATOM	2239	O	ALA	C	170	86.693	26.005	128.575	1.00	30.29
ATOM	2240	N	ALA	C	171	88.314	27.588	128.580	1.00	31.27
ATOM	2241	CA	ALA	C	171	89.436	26.705	128.280	1.00	31.34
ATOM	2242	CB	ALA	C	171	89.218	25.326	128.910	1.00	30.46
ATOM	2243	C	ALA	C	171	89.696	26.571	126.793	1.00	31.73
ATOM	2244	O	ALA	C	171	90.701	25.989	126.387	1.00	33.59
ATOM	2245	N	LYS	C	172	88.800	27.115	125.981	1.00	32.03
ATOM	2246	CA	LYS	C	172	88.960	27.043	124.533	1.00	32.88
ATOM	2247	CB	LYS	C	172	87.599	27.256	123.846	1.00	30.96
ATOM	2248	C	LYS	C	172	89.987	28.080	124.030	1.00	33.39
ATOM	2249	O	LYS	C	172	90.207	29.110	124.665	1.00	32.67
ATOM	2250	N	THR	C	173	90.623	27.773	122.902	1.00	33.31
ATOM	2251	CA	THR	C	173	91.600	28.649	122.261	1.00	32.28
ATOM	2252	CB	THR	C	173	92.572	27.846	121.364	1.00	33.35
ATOM	2253	OG1	THR	C	173	93.408	27.012	122.176	1.00	36.76
ATOM	2254	CG2	THR	C	173	93.419	28.780	120.513	1.00	30.69

Table 1

ATOM	2255	C	THR	C	173	90.832	29.570	121.327	1.00	32.19
ATOM	2256	O	THR	C	173	90.104	29.097	120.463	1.00	31.00
ATOM	2257	N	VAL	C	174	91.002	30.877	121.486	1.00	33.05
ATOM	2258	CA	VAL	C	174	90.322	31.856	120.635	1.00	32.11
ATOM	2259	CB	VAL	C	174	89.621	32.944	121.499	1.00	30.78
ATOM	2260	CG1	VAL	C	174	89.310	34.173	120.656	1.00	30.69
ATOM	2261	CG2	VAL	C	174	88.335	32.393	122.085	1.00	30.31
ATOM	2262	C	VAL	C	174	91.287	32.555	119.664	1.00	31.79
ATOM	2263	O	VAL	C	174	92.390	32.929	120.049	1.00	32.17
ATOM	2264	N	LYS	C	175	90.865	32.728	118.410	1.00	31.18
ATOM	2265	CA	LYS	C	175	91.675	33.408	117.399	1.00	30.82
ATOM	2266	CB	LYS	C	175	92.271	32.392	116.408	1.00	26.76
ATOM	2267	C	LYS	C	175	90.801	34.409	116.641	1.00	31.23
ATOM	2268	O	LYS	C	175	89.760	34.048	116.119	1.00	31.11
ATOM	2269	N	PHE	C	176	91.216	35.671	116.606	1.00	33.39
ATOM	2270	CA	PHE	C	176	90.481	36.716	115.893	1.00	33.06
ATOM	2271	CB	PHE	C	176	90.184	37.888	116.820	1.00	30.10
ATOM	2272	CG	PHE	C	176	89.218	37.552	117.903	1.00	29.97
ATOM	2273	CD1	PHE	C	176	88.000	36.942	117.597	1.00	28.34
ATOM	2274	CD2	PHE	C	176	89.512	37.839	119.234	1.00	27.98
ATOM	2275	CE1	PHE	C	176	87.096	36.627	118.606	1.00	27.80
ATOM	2276	CE2	PHE	C	176	88.607	37.524	120.249	1.00	26.08
ATOM	2277	CZ	PHE	C	176	87.400	36.921	119.935	1.00	25.99
ATOM	2278	C	PHE	C	176	91.294	37.197	114.700	1.00	33.94
ATOM	2279	O	PHE	C	176	92.437	37.622	114.856	1.00	33.78
ATOM	2280	N	LYS	C	177	90.693	37.128	113.515	1.00	35.23
ATOM	2281	CA	LYS	C	177	91.364	37.530	112.284	1.00	35.59
ATOM	2282	CB	LYS	C	177	91.323	36.373	111.276	1.00	34.19
ATOM	2283	C	LYS	C	177	90.784	38.794	111.644	1.00	34.98
ATOM	2284	O	LYS	C	177	89.571	38.993	111.601	1.00	33.90
ATOM	2285	N	CYS	C	178	91.676	39.648	111.155	1.00	35.07
ATOM	2286	CA	CYS	C	178	91.300	40.888	110.475	1.00	35.44
ATOM	2287	C	CYS	C	178	92.115	41.000	109.186	1.00	35.69
ATOM	2288	O	CYS	C	178	92.889	41.941	109.003	1.00	32.89
ATOM	2289	CB	CYS	C	178	91.578	42.094	111.366	1.00	34.12
ATOM	2290	SG	CYS	C	178	90.402	42.228	112.746	1.00	36.50
ATOM	2291	N	PRO	C	179	91.940	40.032	108.273	1.00	36.77
ATOM	2292	CD	PRO	C	179	90.908	38.987	108.287	1.00	36.42
ATOM	2293	CA	PRO	C	179	92.665	40.019	107.003	1.00	38.32
ATOM	2294	CB	PRO	C	179	92.048	38.836	106.259	1.00	37.75
ATOM	2295	CG	PRO	C	179	91.493	37.977	107.357	1.00	37.51
ATOM	2296	C	PRO	C	179	92.456	41.324	106.259	1.00	39.57
ATOM	2297	O	PRO	C	179	91.340	41.645	105.845	1.00	39.56
ATOM	2298	N	SER	C	180	93.539	42.071	106.103	1.00	40.72
ATOM	2299	CA	SER	C	180	93.494	43.345	105.413	1.00	42.44
ATOM	2300	CB	SER	C	180	93.452	44.488	106.436	1.00	41.84
ATOM	2301	OG	SER	C	180	94.668	44.587	107.145	1.00	38.33
ATOM	2302	C	SER	C	180	94.719	43.493	104.513	1.00	43.44
ATOM	2303	O	SER	C	180	95.564	42.597	104.446	1.00	44.06
ATOM	2304	N	SER	C	181	94.809	44.626	103.821	1.00	43.27
ATOM	2305	CA	SER	C	181	95.936	44.892	102.941	1.00	42.03
ATOM	2306	CB	SER	C	181	95.782	44.108	101.635	1.00	40.63
ATOM	2307	OG	SER	C	181	96.947	44.184	100.837	1.00	38.12
ATOM	2308	C	SER	C	181	96.023	46.378	102.648	1.00	42.50
ATOM	2309	O	SER	C	181	95.125	47.143	102.995	1.00	41.78

Table 1

ATOM	2310	N	GLY	C	182	97.120	46.777	102.014	1.00	44.44
ATOM	2311	CA	GLY	C	182	97.320	48.171	101.656	1.00	45.04
ATOM	2312	C	GLY	C	182	98.783	48.471	101.418	1.00	44.61
ATOM	2313	O	GLY	C	182	99.645	47.695	101.829	1.00	44.78
ATOM	2314	N	THR	C	183	99.070	49.577	100.735	1.00	44.98
ATOM	2315	CA	THR	C	183	100.456	49.970	100.486	1.00	43.50
ATOM	2316	CB	THR	C	183	100.890	49.698	99.019	1.00	42.33
ATOM	2317	OG1	THR	C	183	100.264	50.645	98.148	1.00	43.45
ATOM	2318	CG2	THR	C	183	100.513	48.279	98.599	1.00	39.10
ATOM	2319	C	THR	C	183	100.666	51.455	100.816	1.00	42.89
ATOM	2320	O	THR	C	183	99.935	52.329	100.345	1.00	42.37
ATOM	2321	N	PRO	C	184	101.659	51.749	101.670	1.00	43.03
ATOM	2322	CD	PRO	C	184	101.978	53.103	102.159	1.00	43.09
ATOM	2323	CA	PRO	C	184	102.540	50.755	102.290	1.00	42.57
ATOM	2324	CB	PRO	C	184	103.592	51.618	102.977	1.00	41.56
ATOM	2325	CG	PRO	C	184	102.811	52.817	103.396	1.00	41.09
ATOM	2326	C	PRO	C	184	101.825	49.814	103.268	1.00	43.39
ATOM	2327	O	PRO	C	184	100.795	50.162	103.861	1.00	43.41
ATOM	2328	N	GLN	C	185	102.386	48.619	103.418	1.00	43.86
ATOM	2329	CA	GLN	C	185	101.862	47.586	104.312	1.00	43.86
ATOM	2330	CB	GLN	C	185	102.944	46.527	104.538	1.00	45.08
ATOM	2331	CG	GLN	C	185	102.489	45.299	105.297	1.00	46.91
ATOM	2332	CD	GLN	C	185	101.676	44.346	104.437	1.00	48.43
ATOM	2333	OE1	GLN	C	185	101.304	43.264	104.891	1.00	50.68
ATOM	2334	NE2	GLN	C	185	101.397	44.741	103.192	1.00	46.11
ATOM	2335	C	GLN	C	185	101.446	48.171	105.660	1.00	42.38
ATOM	2336	O	GLN	C	185	102.272	48.724	106.381	1.00	43.07
ATOM	2337	N	PRO	C	186	100.157	48.053	106.021	1.00	41.59
ATOM	2338	CD	PRO	C	186	99.013	47.664	105.175	1.00	40.45
ATOM	2339	CA	PRO	C	186	99.704	48.599	107.308	1.00	40.23
ATOM	2340	CB	PRO	C	186	98.188	48.660	107.143	1.00	39.29
ATOM	2341	CG	PRO	C	186	97.905	47.553	106.177	1.00	40.98
ATOM	2342	C	PRO	C	186	100.143	47.865	108.583	1.00	39.30
ATOM	2343	O	PRO	C	186	100.686	46.758	108.545	1.00	39.33
ATOM	2344	N	THR	C	187	99.915	48.523	109.711	1.00	39.08
ATOM	2345	CA	THR	C	187	100.268	47.999	111.029	1.00	39.63
ATOM	2346	CB	THR	C	187	100.741	49.125	111.967	1.00	39.84
ATOM	2347	OG1	THR	C	187	99.591	49.774	112.531	1.00	38.71
ATOM	2348	CG2	THR	C	187	101.560	50.155	111.206	1.00	37.86
ATOM	2349	C	THR	C	187	99.025	47.407	111.684	1.00	39.39
ATOM	2350	O	THR	C	187	97.924	47.939	111.515	1.00	39.66
ATOM	2351	N	LEU	C	188	99.211	46.340	112.459	1.00	38.00
ATOM	2352	CA	LEU	C	188	98.103	45.682	113.148	1.00	36.36
ATOM	2353	CB	LEU	C	188	98.017	44.207	112.725	1.00	33.97
ATOM	2354	CG	LEU	C	188	96.738	43.357	112.848	1.00	31.46
ATOM	2355	CD1	LEU	C	188	97.137	41.908	113.017	1.00	28.72
ATOM	2356	CD2	LEU	C	188	95.886	43.779	114.021	1.00	33.12
ATOM	2357	C	LEU	C	188	98.298	45.731	114.661	1.00	36.78
ATOM	2358	O	LEU	C	188	99.316	45.271	115.176	1.00	37.59
ATOM	2359	N	ARG	C	189	97.332	46.297	115.371	1.00	37.19
ATOM	2360	CA	ARG	C	189	97.391	46.323	116.829	1.00	38.17
ATOM	2361	CB	ARG	C	189	97.843	47.685	117.345	1.00	39.09
ATOM	2362	CG	ARG	C	189	96.901	48.786	117.030	1.00	44.89
ATOM	2363	CD	ARG	C	189	97.431	50.096	117.534	1.00	50.33
ATOM	2364	NE	ARG	C	189	96.532	51.182	117.161	1.00	57.72

Table 1

ATOM	2365	CZ	ARG	C	189	96.804	52.473	117.326	1.00	61.98
ATOM	2366	NH1	ARG	C	189	97.960	52.847	117.863	1.00	65.57
ATOM	2367	NH2	ARG	C	189	95.922	53.394	116.948	1.00	64.03
ATOM	2368	C	ARG	C	189	95.993	45.984	117.344	1.00	36.93
ATOM	2369	O	ARG	C	189	95.005	46.220	116.650	1.00	37.99
ATOM	2370	N	TRP	C	190	95.908	45.407	118.540	1.00	35.51
ATOM	2371	CA	TRP	C	190	94.613	45.041	119.111	1.00	33.97
ATOM	2372	CB	TRP	C	190	94.537	43.550	119.414	1.00	32.32
ATOM	2373	CG	TRP	C	190	94.615	42.690	118.212	1.00	33.64
ATOM	2374	CD2	TRP	C	190	93.514	42.111	117.497	1.00	35.85
ATOM	2375	CE2	TRP	C	190	94.057	41.391	116.409	1.00	34.62
ATOM	2376	CE3	TRP	C	190	92.117	42.131	117.670	1.00	36.09
ATOM	2377	CD1	TRP	C	190	95.741	42.309	117.549	1.00	32.67
ATOM	2378	NE1	TRP	C	190	95.419	41.531	116.468	1.00	32.98
ATOM	2379	CZ2	TRP	C	190	93.255	40.694	115.495	1.00	31.94
ATOM	2380	CZ3	TRP	C	190	91.322	41.438	116.760	1.00	32.93
ATOM	2381	CH2	TRP	C	190	91.898	40.730	115.688	1.00	33.05
ATOM	2382	C	TRP	C	190	94.301	45.793	120.382	1.00	34.67
ATOM	2383	O	TRP	C	190	95.201	46.292	121.059	1.00	35.92
ATOM	2384	N	LEU	C	191	93.014	45.860	120.705	1.00	34.12
ATOM	2385	CA	LEU	C	191	92.568	46.547	121.900	1.00	33.44
ATOM	2386	CB	LEU	C	191	91.985	47.911	121.546	1.00	33.52
ATOM	2387	CG	LEU	C	191	92.809	48.949	120.790	1.00	32.72
ATOM	2388	CD1	LEU	C	191	91.974	50.219	120.686	1.00	30.58
ATOM	2389	CD2	LEU	C	191	94.127	49.217	121.508	1.00	32.65
ATOM	2390	C	LEU	C	191	91.504	45.750	122.634	1.00	34.98
ATOM	2391	O	LEU	C	191	90.497	45.348	122.038	1.00	35.62
ATOM	2392	N	LYS	C	192	91.726	45.516	123.925	1.00	34.06
ATOM	2393	CA	LYS	C	192	90.749	44.804	124.737	1.00	32.83
ATOM	2394	CB	LYS	C	192	91.461	43.992	125.814	1.00	32.77
ATOM	2395	CG	LYS	C	192	90.590	43.068	126.641	1.00	30.53
ATOM	2396	CD	LYS	C	192	91.486	42.167	127.481	1.00	30.45
ATOM	2397	CE	LYS	C	192	90.737	41.003	128.119	1.00	29.54
ATOM	2398	NZ	LYS	C	192	89.698	41.499	129.062	1.00	29.96
ATOM	2399	C	LYS	C	192	89.900	45.906	125.357	1.00	33.41
ATOM	2400	O	LYS	C	192	90.403	46.752	126.100	1.00	33.66
ATOM	2401	N	ASN	C	193	88.620	45.909	125.011	1.00	34.21
ATOM	2402	CA	ASN	C	193	87.670	46.902	125.495	1.00	35.18
ATOM	2403	CB	ASN	C	193	87.418	46.694	126.982	1.00	36.87
ATOM	2404	CG	ASN	C	193	87.001	45.274	127.301	1.00	39.31
ATOM	2405	OD1	ASN	C	193	86.035	44.750	126.742	1.00	41.66
ATOM	2406	ND2	ASN	C	193	87.732	44.640	128.204	1.00	41.39
ATOM	2407	C	ASN	C	193	88.103	48.343	125.229	1.00	35.22
ATOM	2408	O	ASN	C	193	87.892	49.226	126.056	1.00	34.17
ATOM	2409	N	GLY	C	194	88.714	48.569	124.070	1.00	34.49
ATOM	2410	CA	GLY	C	194	89.139	49.910	123.719	1.00	36.02
ATOM	2411	C	GLY	C	194	90.462	50.383	124.290	1.00	35.90
ATOM	2412	O	GLY	C	194	90.927	51.468	123.948	1.00	36.63
ATOM	2413	N	LYS	C	195	91.083	49.582	125.145	1.00	34.82
ATOM	2414	CA	LYS	C	195	92.356	49.975	125.726	1.00	35.14
ATOM	2415	CB	LYS	C	195	92.303	49.785	127.246	1.00	33.76
ATOM	2416	C	LYS	C	195	93.526	49.184	125.136	1.00	35.43
ATOM	2417	O	LYS	C	195	93.327	48.132	124.530	1.00	35.33
ATOM	2418	N	GLU	C	196	94.741	49.705	125.292	1.00	36.75
ATOM	2419	CA	GLU	C	196	95.931	49.013	124.802	1.00	39.16

Table 1

ATOM	2420	CB	GLU	C	196	97.214	49.728	125.252	1.00	38.19
ATOM	2421	C	GLU	C	196	95.883	47.609	125.405	1.00	40.34
ATOM	2422	O	GLU	C	196	95.549	47.435	126.575	1.00	40.73
ATOM	2423	N	PHE	C	197	96.223	46.612	124.603	1.00	41.32
ATOM	2424	CA	PHE	C	197	96.172	45.230	125.047	1.00	41.76
ATOM	2425	CB	PHE	C	197	95.207	44.461	124.137	1.00	39.22
ATOM	2426	CG	PHE	C	197	94.989	43.030	124.540	1.00	38.70
ATOM	2427	CD1	PHE	C	197	94.817	42.047	123.575	1.00	37.21
ATOM	2428	CD2	PHE	C	197	94.933	42.662	125.882	1.00	39.36
ATOM	2429	CE1	PHE	C	197	94.593	40.723	123.930	1.00	36.13
ATOM	2430	CE2	PHE	C	197	94.706	41.330	126.248	1.00	39.06
ATOM	2431	CZ	PHE	C	197	94.538	40.362	125.265	1.00	35.94
ATOM	2432	C	PHE	C	197	97.539	44.554	125.021	1.00	42.62
ATOM	2433	O	PHE	C	197	97.909	43.977	124.007	1.00	41.17
ATOM	2434	N	LYS	C	198	98.286	44.615	126.121	1.00	43.49
ATOM	2435	CA	LYS	C	198	99.600	43.971	126.152	1.00	44.01
ATOM	2436	CB	LYS	C	198	100.535	44.686	127.129	1.00	42.32
ATOM	2437	C	LYS	C	198	99.436	42.512	126.561	1.00	45.04
ATOM	2438	O	LYS	C	198	98.508	42.171	127.286	1.00	43.90
ATOM	2439	N	PRO	C	199	100.330	41.624	126.084	1.00	47.00
ATOM	2440	CD	PRO	C	199	101.396	41.853	125.097	1.00	47.32
ATOM	2441	CA	PRO	C	199	100.251	40.199	126.421	1.00	47.52
ATOM	2442	CB	PRO	C	199	101.345	39.568	125.555	1.00	46.71
ATOM	2443	CG	PRO	C	199	102.313	40.681	125.355	1.00	47.16
ATOM	2444	C	PRO	C	199	100.369	39.829	127.893	1.00	48.67
ATOM	2445	O	PRO	C	199	99.992	38.722	128.282	1.00	49.53
ATOM	2446	N	ASP	C	200	100.878	40.733	128.724	1.00	49.32
ATOM	2447	CA	ASP	C	200	100.991	40.428	130.143	1.00	49.39
ATOM	2448	CB	ASP	C	200	102.074	41.281	130.785	1.00	52.43
ATOM	2449	CG	ASP	C	200	103.436	41.042	130.149	1.00	55.59
ATOM	2450	OD1	ASP	C	200	103.565	41.275	128.927	1.00	58.24
ATOM	2451	OD2	ASP	C	200	104.370	40.607	130.866	1.00	56.58
ATOM	2452	C	ASP	C	200	99.651	40.664	130.808	1.00	48.50
ATOM	2453	O	ASP	C	200	99.503	40.490	132.022	1.00	49.38
ATOM	2454	N	HIS	C	201	98.668	41.046	130.003	1.00	46.95
ATOM	2455	CA	HIS	C	201	97.328	41.276	130.520	1.00	44.80
ATOM	2456	CB	HIS	C	201	96.488	42.086	129.558	1.00	45.08
ATOM	2457	CG	HIS	C	201	96.808	43.540	129.568	1.00	45.02
ATOM	2458	CD2	HIS	C	201	96.109	44.598	130.026	1.00	44.68
ATOM	2459	ND1	HIS	C	201	97.967	44.049	129.026	1.00	46.64
ATOM	2460	CE1	HIS	C	201	97.972	45.361	129.144	1.00	45.48
ATOM	2461	NE2	HIS	C	201	96.859	45.724	129.752	1.00	44.56
ATOM	2462	C	HIS	C	201	96.583	39.974	130.810	1.00	43.86
ATOM	2463	O	HIS	C	201	95.456	40.005	131.319	1.00	43.74
ATOM	2464	N	ARG	C	202	97.186	38.826	130.482	1.00	41.62
ATOM	2465	CA	ARG	C	202	96.542	37.554	130.763	1.00	40.68
ATOM	2466	CB	ARG	C	202	95.555	37.202	129.660	1.00	39.42
ATOM	2467	CG	ARG	C	202	96.157	36.684	128.370	1.00	37.72
ATOM	2468	CD	ARG	C	202	95.064	36.546	127.321	1.00	37.23
ATOM	2469	NE	ARG	C	202	94.048	35.571	127.694	1.00	34.77
ATOM	2470	CZ	ARG	C	202	94.172	34.262	127.510	1.00	37.24
ATOM	2471	NH1	ARG	C	202	95.271	33.767	126.953	1.00	39.35
ATOM	2472	NH2	ARG	C	202	93.197	33.444	127.882	1.00	34.91
ATOM	2473	C	ARG	C	202	97.589	36.476	130.874	1.00	42.16
ATOM	2474	O	ARG	C	202	98.590	36.509	130.160	1.00	43.04

Table I'

ATOM	2475	N	ILE	C	203	97.359	35.524	131.772	1.00	42.53
ATOM	2476	CA	ILE	C	203	98.311	34.430	131.958	1.00	44.52
ATOM	2477	CB	ILE	C	203	97.821	33.391	133.016	1.00	45.70
ATOM	2478	CG2	ILE	C	203	98.781	32.199	133.078	1.00	45.54
ATOM	2479	CG1	ILE	C	203	97.776	34.034	134.403	1.00	48.01
ATOM	2480	CD1	ILE	C	203	99.143	34.427	134.944	1.00	48.44
ATOM	2481	C	ILE	C	203	98.539	33.703	130.638	1.00	44.37
ATOM	2482	O	ILE	C	203	97.593	33.443	129.888	1.00	45.23
ATOM	2483	N	GLY	C	204	99.796	33.374	130.358	1.00	43.64
ATOM	2484	CA	GLY	C	204	100.115	32.691	129.118	1.00	42.70
ATOM	2485	C	GLY	C	204	100.151	33.673	127.964	1.00	41.41
ATOM	2486	O	GLY	C	204	100.620	33.346	126.881	1.00	40.04
ATOM	2487	N	GLY	C	205	99.643	34.880	128.208	1.00	41.20
ATOM	2488	CA	GLY	C	205	99.614	35.913	127.187	1.00	40.95
ATOM	2489	C	GLY	C	205	98.808	35.575	125.942	1.00	40.36
ATOM	2490	O	GLY	C	205	97.720	34.998	126.017	1.00	40.49
ATOM	2491	N	TYR	C	206	99.347	35.947	124.788	1.00	39.57
ATOM	2492	CA	TYR	C	206	98.691	35.683	123.515	1.00	38.69
ATOM	2493	CB	TYR	C	206	97.467	36.589	123.351	1.00	38.68
ATOM	2494	CG	TYR	C	206	97.801	38.060	123.281	1.00	38.74
ATOM	2495	CD1	TYR	C	206	97.668	38.872	124.401	1.00	39.11
ATOM	2496	CE1	TYR	C	206	97.957	40.217	124.339	1.00	39.50
ATOM	2497	CD2	TYR	C	206	98.243	38.640	122.091	1.00	36.73
ATOM	2498	CE2	TYR	C	206	98.538	39.973	122.022	1.00	37.36
ATOM	2499	CZ	TYR	C	206	98.393	40.761	123.148	1.00	40.01
ATOM	2500	OH	TYR	C	206	98.697	42.101	123.097	1.00	43.16
ATOM	2501	C	TYR	C	206	99.645	35.889	122.340	1.00	37.30
ATOM	2502	O	TYR	C	206	100.583	36.671	122.431	1.00	38.54
ATOM	2503	N	LYS	C	207	99.392	35.194	121.234	1.00	36.45
ATOM	2504	CA	LYS	C	207	100.237	35.300	120.046	1.00	36.87
ATOM	2505	CB	LYS	C	207	100.591	33.907	119.504	1.00	32.85
ATOM	2506	C	LYS	C	207	99.576	36.098	118.934	1.00	37.95
ATOM	2507	O	LYS	C	207	98.397	35.915	118.639	1.00	38.31
ATOM	2508	N	VAL	C	208	100.349	36.981	118.313	1.00	40.05
ATOM	2509	CA	VAL	C	208	99.850	37.796	117.207	1.00	41.07
ATOM	2510	CB	VAL	C	208	100.060	39.307	117.460	1.00	38.91
ATOM	2511	CG1	VAL	C	208	99.653	40.100	116.237	1.00	38.42
ATOM	2512	CG2	VAL	C	208	99.241	39.748	118.642	1.00	40.22
ATOM	2513	C	VAL	C	208	100.572	37.437	115.910	1.00	42.48
ATOM	2514	O	VAL	C	208	101.672	37.921	115.663	1.00	43.10
ATOM	2515	N	ARG	C	209	99.971	36.577	115.089	1.00	44.16
ATOM	2516	CA	ARG	C	209	100.587	36.204	113.811	1.00	45.44
ATOM	2517	CB	ARG	C	209	100.056	34.853	113.305	1.00	43.55
ATOM	2518	C	ARG	C	209	100.231	37.313	112.816	1.00	46.48
ATOM	2519	O	ARG	C	209	99.090	37.393	112.346	1.00	46.30
ATOM	2520	N	TYR	C	210	101.210	38.169	112.512	1.00	46.88
ATOM	2521	CA	TYR	C	210	101.003	39.299	111.605	1.00	46.66
ATOM	2522	CB	TYR	C	210	102.192	40.265	111.627	1.00	49.05
ATOM	2523	CG	TYR	C	210	102.532	40.780	113.008	1.00	54.11
ATOM	2524	CD1	TYR	C	210	103.331	40.028	113.876	1.00	56.13
ATOM	2525	CE1	TYR	C	210	103.602	40.468	115.170	1.00	57.60
ATOM	2526	CD2	TYR	C	210	102.013	41.997	113.473	1.00	55.77
ATOM	2527	CE2	TYR	C	210	102.275	42.447	114.765	1.00	57.07
ATOM	2528	CZ	TYR	C	210	103.069	41.676	115.608	1.00	58.31
ATOM	2529	OH	TYR	C	210	103.321	42.107	116.892	1.00	60.81

Table 1

ATOM	2530	C	TYR	C	210	100.768	38.868	110.191	1.00	44.74
ATOM	2531	O	TYR	C	210	100.074	39.547	109.441	1.00	45.31
ATOM	2532	N	ALA	C	211	101.361	37.744	109.818	1.00	43.76
ATOM	2533	CA	ALA	C	211	101.194	37.231	108.471	1.00	43.74
ATOM	2534	CB	ALA	C	211	102.120	36.057	108.252	1.00	43.87
ATOM	2535	C	ALA	C	211	99.740	36.812	108.266	1.00	43.16
ATOM	2536	O	ALA	C	211	99.255	36.747	107.144	1.00	42.29
ATOM	2537	N	THR	C	212	99.052	36.548	109.370	1.00	44.47
ATOM	2538	CA	THR	C	212	97.652	36.126	109.351	1.00	45.66
ATOM	2539	CB	THR	C	212	97.380	34.968	110.343	1.00	48.23
ATOM	2540	OG1	THR	C	212	98.597	34.273	110.634	1.00	52.50
ATOM	2541	CG2	THR	C	212	96.351	34.000	109.770	1.00	49.52
ATOM	2542	C	THR	C	212	96.712	37.246	109.780	1.00	44.59
ATOM	2543	O	THR	C	212	95.491	37.092	109.704	1.00	45.13
ATOM	2544	N	TRP	C	213	97.268	38.352	110.263	1.00	42.58
ATOM	2545	CA	TRP	C	213	96.436	39.456	110.703	1.00	40.90
ATOM	2546	CB	TRP	C	213	95.598	39.986	109.537	1.00	42.74
ATOM	2547	CG	TRP	C	213	96.411	40.547	108.437	1.00	42.12
ATOM	2548	CD2	TRP	C	213	97.005	41.842	108.402	1.00	41.92
ATOM	2549	CE2	TRP	C	213	97.714	41.942	107.187	1.00	42.84
ATOM	2550	CE3	TRP	C	213	97.007	42.934	109.281	1.00	41.10
ATOM	2551	CD1	TRP	C	213	96.767	39.924	107.281	1.00	42.59
ATOM	2552	NE1	TRP	C	213	97.552	40.756	106.521	1.00	43.69
ATOM	2553	CZ2	TRP	C	213	98.421	43.089	106.824	1.00	43.35
ATOM	2554	CZ3	TRP	C	213	97.705	44.075	108.925	1.00	42.32
ATOM	2555	CH2	TRP	C	213	98.405	44.145	107.704	1.00	43.55
ATOM	2556	C	TRP	C	213	95.508	38.954	111.788	1.00	39.39
ATOM	2557	O	TRP	C	213	94.321	39.294	111.817	1.00	38.02
ATOM	2558	N	SER	C	214	96.040	38.138	112.684	1.00	38.04
ATOM	2559	CA	SER	C	214	95.195	37.612	113.735	1.00	38.52
ATOM	2560	CB	SER	C	214	94.704	36.209	113.366	1.00	38.63
ATOM	2561	OG	SER	C	214	95.787	35.308	113.243	1.00	40.15
ATOM	2562	C	SER	C	214	95.831	37.588	115.109	1.00	37.44
ATOM	2563	O	SER	C	214	97.045	37.753	115.254	1.00	38.93
ATOM	2564	N	ILE	C	215	94.981	37.411	116.116	1.00	34.80
ATOM	2565	CA	ILE	C	215	95.423	37.335	117.497	1.00	32.54
ATOM	2566	CB	ILE	C	215	94.881	38.482	118.343	1.00	30.76
ATOM	2567	CG2	ILE	C	215	93.351	38.494	118.285	1.00	27.37
ATOM	2568	CG1	ILE	C	215	95.424	38.341	119.765	1.00	29.21
ATOM	2569	CD1	ILE	C	215	95.232	39.566	120.634	1.00	31.69
ATOM	2570	C	ILE	C	215	94.872	36.034	118.044	1.00	32.55
ATOM	2571	O	ILE	C	215	93.739	35.654	117.753	1.00	32.98
ATOM	2572	N	ILE	C	216	95.670	35.347	118.843	1.00	30.59
ATOM	2573	CA	ILE	C	216	95.235	34.079	119.385	1.00	27.26
ATOM	2574	CB	ILE	C	216	96.011	32.945	118.732	1.00	27.82
ATOM	2575	CG2	ILE	C	216	95.489	31.617	119.218	1.00	26.00
ATOM	2576	CG1	ILE	C	216	95.889	33.072	117.210	1.00	30.26
ATOM	2577	CD1	ILE	C	216	96.663	32.040	116.427	1.00	32.20
ATOM	2578	C	ILE	C	216	95.389	33.985	120.882	1.00	25.63
ATOM	2579	O	ILE	C	216	96.407	34.373	121.444	1.00	24.12
ATOM	2580	N	MET	C	217	94.357	33.482	121.533	1.00	25.01
ATOM	2581	CA	MET	C	217	94.405	33.312	122.968	1.00	26.49
ATOM	2582	CB	MET	C	217	93.450	34.270	123.668	1.00	25.10
ATOM	2583	CG	MET	C	217	93.780	35.714	123.453	1.00	26.08
ATOM	2584	SD	MET	C	217	92.719	36.763	124.435	1.00	28.69

Table 1

ATOM	2585	CE	MET	C	217	91.386	36.979	123.321	1.00	29.90
ATOM	2586	C	MET	C	217	94.076	31.869	123.333	1.00	28.23
ATOM	2587	O	MET	C	217	93.113	31.271	122.843	1.00	28.32
ATOM	2588	N	ASP	C	218	94.910	31.300	124.190	1.00	29.55
ATOM	2589	CA	ASP	C	218	94.711	29.935	124.632	1.00	28.10
ATOM	2590	CB	ASP	C	218	96.044	29.248	124.890	1.00	26.11
ATOM	2591	CG	ASP	C	218	96.745	28.854	123.626	1.00	27.42
ATOM	2592	OD1	ASP	C	218	96.054	28.374	122.698	1.00	25.60
ATOM	2593	OD2	ASP	C	218	97.991	29.006	123.570	1.00	30.13
ATOM	2594	C	ASP	C	218	93.894	29.944	125.912	1.00	28.61
ATOM	2595	O	ASP	C	218	93.813	30.969	126.595	1.00	27.04
ATOM	2596	N	SER	C	219	93.297	28.793	126.224	1.00	29.67
ATOM	2597	CA	SER	C	219	92.480	28.607	127.425	1.00	29.41
ATOM	2598	CB	SER	C	219	93.314	27.972	128.534	1.00	29.13
ATOM	2599	OG	SER	C	219	92.485	27.653	129.642	1.00	30.01
ATOM	2600	C	SER	C	219	91.818	29.873	127.972	1.00	29.79
ATOM	2601	O	SER	C	219	92.176	30.372	129.041	1.00	27.97
ATOM	2602	N	VAL	C	220	90.829	30.374	127.239	1.00	31.22
ATOM	2603	CA	VAL	C	220	90.109	31.577	127.631	1.00	30.62
ATOM	2604	CB	VAL	C	220	89.239	32.075	126.481	1.00	27.62
ATOM	2605	CG1	VAL	C	220	90.109	32.616	125.378	1.00	26.20
ATOM	2606	CG2	VAL	C	220	88.413	30.946	125.956	1.00	29.75
ATOM	2607	C	VAL	C	220	89.235	31.393	128.870	1.00	31.94
ATOM	2608	O	VAL	C	220	88.472	30.434	128.994	1.00	32.79
ATOM	2609	N	VAL	C	221	89.353	32.334	129.791	1.00	32.13
ATOM	2610	CA	VAL	C	221	88.586	32.293	131.022	1.00	31.92
ATOM	2611	CB	VAL	C	221	89.533	32.287	132.267	1.00	31.72
ATOM	2612	CG1	VAL	C	221	90.534	31.137	132.175	1.00	29.53
ATOM	2613	CG2	VAL	C	221	90.269	33.608	132.365	1.00	31.11
ATOM	2614	C	VAL	C	221	87.682	33.537	131.046	1.00	32.11
ATOM	2615	O	VAL	C	221	87.858	34.446	130.229	1.00	31.15
ATOM	2616	N	PRO	C	222	86.707	33.597	131.982	1.00	31.23
ATOM	2617	CD	PRO	C	222	86.345	32.563	132.966	1.00	30.92
ATOM	2618	CA	PRO	C	222	85.784	34.731	132.105	1.00	30.47
ATOM	2619	CB	PRO	C	222	85.070	34.457	133.419	1.00	27.58
ATOM	2620	CG	PRO	C	222	84.953	33.014	133.399	1.00	29.80
ATOM	2621	C	PRO	C	222	86.424	36.114	132.096	1.00	31.43
ATOM	2622	O	PRO	C	222	85.848	37.055	131.548	1.00	30.86
ATOM	2623	N	SER	C	223	87.598	36.255	132.711	1.00	32.22
ATOM	2624	CA	SER	C	223	88.256	37.560	132.730	1.00	31.94
ATOM	2625	CB	SER	C	223	89.503	37.548	133.644	1.00	31.67
ATOM	2626	OG	SER	C	223	90.516	36.649	133.212	1.00	30.71
ATOM	2627	C	SER	C	223	88.619	38.009	131.305	1.00	32.23
ATOM	2628	O	SER	C	223	88.892	39.179	131.070	1.00	31.36
ATOM	2629	N	ASP	C	224	88.609	37.078	130.357	1.00	31.98
ATOM	2630	CA	ASP	C	224	88.912	37.412	128.978	1.00	32.72
ATOM	2631	CB	ASP	C	224	89.340	36.169	128.201	1.00	35.56
ATOM	2632	CG	ASP	C	224	90.740	35.736	128.537	1.00	37.51
ATOM	2633	OD1	ASP	C	224	91.622	36.618	128.591	1.00	40.81
ATOM	2634	OD2	ASP	C	224	90.964	34.525	128.736	1.00	37.64
ATOM	2635	C	ASP	C	224	87.691	38.002	128.312	1.00	32.18
ATOM	2636	O	ASP	C	224	87.799	38.675	127.298	1.00	32.48
ATOM	2637	N	LYS	C	225	86.521	37.725	128.872	1.00	31.98
ATOM	2638	CA	LYS	C	225	85.277	38.234	128.315	1.00	32.69
ATOM	2639	CB	LYS	C	225	84.128	38.037	129.314	1.00	33.13

Table 1

ATOM	2640	CG	LYS	C	225	83.573	36.610	129.425	1.00	33.78
ATOM	2641	CD	LYS	C	225	82.107	36.644	129.872	1.00	33.61
ATOM	2642	CE	LYS	C	225	81.925	36.311	131.357	1.00	38.01
ATOM	2643	NZ	LYS	C	225	80.529	36.606	131.836	1.00	38.05
ATOM	2644	C	LYS	C	225	85.408	39.717	127.988	1.00	32.99
ATOM	2645	O	LYS	C	225	85.896	40.488	128.809	1.00	33.98
ATOM	2646	N	GLY	C	226	84.979	40.124	126.798	1.00	32.15
ATOM	2647	CA	GLY	C	226	85.061	41.534	126.458	1.00	33.00
ATOM	2648	C	GLY	C	226	85.066	41.804	124.975	1.00	33.41
ATOM	2649	O	GLY	C	226	84.796	40.901	124.187	1.00	34.91
ATOM	2650	N	ASN	C	227	85.356	43.047	124.590	1.00	32.62
ATOM	2651	CA	ASN	C	227	85.419	43.406	123.176	1.00	31.01
ATOM	2652	CB	ASN	C	227	84.675	44.697	122.893	1.00	29.69
ATOM	2653	CG	ASN	C	227	83.219	44.595	123.210	1.00	28.50
ATOM	2654	OD1	ASN	C	227	82.577	43.587	122.913	1.00	29.98
ATOM	2655	ND2	ASN	C	227	82.675	45.642	123.808	1.00	25.67
ATOM	2656	C	ASN	C	227	86.855	43.576	122.730	1.00	31.54
ATOM	2657	O	ASN	C	227	87.668	44.181	123.411	1.00	33.57
ATOM	2658	N	TYR	C	228	87.173	43.027	121.576	1.00	31.42
ATOM	2659	CA	TYR	C	228	88.518	43.142	121.065	1.00	32.10
ATOM	2660	CB	TYR	C	228	89.162	41.765	120.962	1.00	31.62
ATOM	2661	CG	TYR	C	228	89.273	41.070	122.288	1.00	32.41
ATOM	2662	CD1	TYR	C	228	88.138	40.585	122.954	1.00	32.91
ATOM	2663	CE1	TYR	C	228	88.249	39.954	124.207	1.00	34.77
ATOM	2664	CD2	TYR	C	228	90.516	40.912	122.899	1.00	34.65
ATOM	2665	CE2	TYR	C	228	90.645	40.291	124.145	1.00	34.81
ATOM	2666	CZ	TYR	C	228	89.515	39.813	124.791	1.00	35.79
ATOM	2667	OH	TYR	C	228	89.674	39.179	126.001	1.00	36.37
ATOM	2668	C	TYR	C	228	88.426	43.807	119.707	1.00	32.91
ATOM	2669	O	TYR	C	228	87.634	43.397	118.852	1.00	31.39
ATOM	2670	N	THR	C	229	89.237	44.845	119.530	1.00	33.31
ATOM	2671	CA	THR	C	229	89.262	45.624	118.303	1.00	31.06
ATOM	2672	CB	THR	C	229	88.956	47.081	118.595	1.00	29.65
ATOM	2673	OG1	THR	C	229	87.603	47.198	119.047	1.00	29.25
ATOM	2674	CG2	THR	C	229	89.186	47.917	117.359	1.00	28.81
ATOM	2675	C	THR	C	229	90.608	45.585	117.622	1.00	29.85
ATOM	2676	O	THR	C	229	91.630	45.805	118.253	1.00	28.08
ATOM	2677	N	CYS	C	230	90.608	45.304	116.329	1.00	31.21
ATOM	2678	CA	CYS	C	230	91.852	45.282	115.586	1.00	31.56
ATOM	2679	C	CYS	C	230	91.929	46.617	114.874	1.00	31.07
ATOM	2680	O	CYS	C	230	90.911	47.161	114.443	1.00	30.73
ATOM	2681	CB	CYS	C	230	91.872	44.139	114.569	1.00	31.93
ATOM	2682	SG	CYS	C	230	90.535	44.169	113.337	1.00	29.76
ATOM	2683	N	ILE	C	231	93.135	47.156	114.784	1.00	31.08
ATOM	2684	CA	ILE	C	231	93.350	48.429	114.116	1.00	31.36
ATOM	2685	CB	ILE	C	231	93.746	49.525	115.108	1.00	29.07
ATOM	2686	CG2	ILE	C	231	94.013	50.819	114.386	1.00	26.48
ATOM	2687	CG1	ILE	C	231	92.615	49.733	116.096	1.00	29.41
ATOM	2688	CD1	ILE	C	231	92.982	50.640	117.222	1.00	32.64
ATOM	2689	C	ILE	C	231	94.459	48.265	113.097	1.00	33.74
ATOM	2690	O	ILE	C	231	95.646	48.143	113.450	1.00	34.89
ATOM	2691	N	VAL	C	232	94.055	48.227	111.831	1.00	34.68
ATOM	2692	CA	VAL	C	232	94.992	48.101	110.726	1.00	35.66
ATOM	2693	CB	VAL	C	232	94.437	47.244	109.614	1.00	34.43
ATOM	2694	CG1	VAL	C	232	95.526	46.993	108.601	1.00	35.90

Table 1

ATOM	2695	CG2	VAL	C	232	93.887	45.966	110.174	1.00	31.80
ATOM	2696	C	VAL	C	232	95.174	49.498	110.184	1.00	37.27
ATOM	2697	O	VAL	C	232	94.204	50.168	109.831	1.00	37.78
ATOM	2698	N	GLU	C	233	96.413	49.945	110.094	1.00	39.96
ATOM	2699	CA	GLU	C	233	96.627	51.299	109.626	1.00	41.82
ATOM	2700	CB	GLU	C	233	96.523	52.239	110.825	1.00	42.88
ATOM	2701	CG	GLU	C	233	96.386	53.679	110.443	1.00	48.56
ATOM	2702	CD	GLU	C	233	96.259	54.578	111.642	1.00	51.10
ATOM	2703	OE1	GLU	C	233	96.017	54.054	112.756	1.00	52.31
ATOM	2704	OE2	GLU	C	233	96.393	55.810	111.457	1.00	53.25
ATOM	2705	C	GLU	C	233	97.930	51.572	108.876	1.00	40.67
ATOM	2706	O	GLU	C	233	98.935	50.889	109.076	1.00	40.71
ATOM	2707	N	ASN	C	234	97.879	52.567	107.994	1.00	39.72
ATOM	2708	CA	ASN	C	234	99.038	53.019	107.234	1.00	39.29
ATOM	2709	CB	ASN	C	234	99.203	52.272	105.884	1.00	36.35
ATOM	2710	CG	ASN	C	234	98.347	52.840	104.748	1.00	35.20
ATOM	2711	OD1	ASN	C	234	97.750	53.905	104.859	1.00	33.07
ATOM	2712	ND2	ASN	C	234	98.308	52.115	103.631	1.00	32.78
ATOM	2713	C	ASN	C	234	98.869	54.523	107.039	1.00	40.78
ATOM	2714	O	ASN	C	234	97.893	55.102	107.524	1.00	40.10
ATOM	2715	N	GLU	C	235	99.811	55.157	106.346	1.00	42.64
ATOM	2716	CA	GLU	C	235	99.763	56.606	106.133	1.00	42.97
ATOM	2717	CB	GLU	C	235	100.978	57.068	105.324	1.00	43.47
ATOM	2718	C	GLU	C	235	98.504	57.169	105.475	1.00	43.42
ATOM	2719	O	GLU	C	235	98.195	58.340	105.654	1.00	43.34
ATOM	2720	N	TYR	C	236	97.765	56.358	104.726	1.00	43.63
ATOM	2721	CA	TYR	C	236	96.581	56.882	104.050	1.00	43.35
ATOM	2722	CB	TYR	C	236	96.621	56.480	102.576	1.00	46.25
ATOM	2723	CG	TYR	C	236	97.982	56.709	101.961	1.00	49.41
ATOM	2724	CD1	TYR	C	236	98.907	55.671	101.869	1.00	52.22
ATOM	2725	CE1	TYR	C	236	100.179	55.882	101.350	1.00	54.00
ATOM	2726	CD2	TYR	C	236	98.367	57.975	101.515	1.00	51.14
ATOM	2727	CE2	TYR	C	236	99.643	58.202	100.994	1.00	52.30
ATOM	2728	CZ	TYR	C	236	100.543	57.152	100.917	1.00	54.30
ATOM	2729	OH	TYR	C	236	101.814	57.362	100.425	1.00	54.97
ATOM	2730	C	TYR	C	236	95.221	56.534	104.650	1.00	40.94
ATOM	2731	O	TYR	C	236	94.185	56.933	104.119	1.00	38.63
ATOM	2732	N	GLY	C	237	95.223	55.805	105.759	1.00	39.11
ATOM	2733	CA	GLY	C	237	93.969	55.451	106.390	1.00	37.11
ATOM	2734	C	GLY	C	237	94.078	54.300	107.367	1.00	36.57
ATOM	2735	O	GLY	C	237	95.119	53.650	107.478	1.00	36.30
ATOM	2736	N	SER	C	238	92.991	54.060	108.093	1.00	34.87
ATOM	2737	CA	SER	C	238	92.943	52.974	109.054	1.00	33.24
ATOM	2738	CB	SER	C	238	93.251	53.476	110.455	1.00	33.21
ATOM	2739	OG	SER	C	238	92.087	54.057	111.007	1.00	35.23
ATOM	2740	C	SER	C	238	91.552	52.375	109.074	1.00	31.13
ATOM	2741	O	SER	C	238	90.561	53.055	108.830	1.00	28.33
ATOM	2742	N	ILE	C	239	91.490	51.091	109.376	1.00	30.79
ATOM	2743	CA	ILE	C	239	90.224	50.401	109.467	1.00	30.00
ATOM	2744	CB	ILE	C	239	89.998	49.504	108.250	1.00	26.28
ATOM	2745	CG2	ILE	C	239	89.705	50.375	107.026	1.00	25.43
ATOM	2746	CG1	ILE	C	239	91.213	48.613	108.015	1.00	18.70
ATOM	2747	CD1	ILE	C	239	90.999	47.657	106.886	1.00	13.24
ATOM	2748	C	ILE	C	239	90.284	49.581	110.735	1.00	31.43
ATOM	2749	O	ILE	C	239	91.370	49.232	111.196	1.00	33.06

Table 1

ATOM	2750	N	ASN	C	240	89.122	49.296	111.309	1.00	31.88
ATOM	2751	CA	ASN	C	240	89.041	48.532	112.542	1.00	31.51
ATOM	2752	CB	ASN	C	240	88.890	49.482	113.707	1.00	31.92
ATOM	2753	CG	ASN	C	240	87.635	50.313	113.602	1.00	33.22
ATOM	2754	OD1	ASN	C	240	87.546	51.386	114.171	1.00	36.26
ATOM	2755	ND2	ASN	C	240	86.650	49.812	112.879	1.00	35.73
ATOM	2756	C	ASN	C	240	87.845	47.603	112.516	1.00	32.00
ATOM	2757	O	ASN	C	240	86.911	47.795	111.743	1.00	31.13
ATOM	2758	N	HIS	C	241	87.879	46.594	113.372	1.00	33.09
ATOM	2759	CA	HIS	C	241	86.787	45.644	113.468	1.00	32.20
ATOM	2760	CB	HIS	C	241	86.966	44.490	112.495	1.00	30.92
ATOM	2761	CG	HIS	C	241	85.779	43.585	112.436	1.00	31.46
ATOM	2762	CD2	HIS	C	241	85.618	42.298	112.820	1.00	31.42
ATOM	2763	ND1	HIS	C	241	84.557	43.998	111.949	1.00	28.62
ATOM	2764	CE1	HIS	C	241	83.697	43.000	112.033	1.00	31.53
ATOM	2765	NE2	HIS	C	241	84.314	41.957	112.559	1.00	31.80
ATOM	2766	C	HIS	C	241	86.795	45.107	114.874	1.00	31.49
ATOM	2767	O	HIS	C	241	87.848	44.785	115.406	1.00	32.43
ATOM	2768	N	THR	C	242	85.622	45.014	115.479	1.00	31.45
ATOM	2769	CA	THR	C	242	85.524	44.527	116.846	1.00	30.81
ATOM	2770	CB	THR	C	242	84.785	45.552	117.735	1.00	28.87
ATOM	2771	OG1	THR	C	242	85.412	46.832	117.606	1.00	27.00
ATOM	2772	CG2	THR	C	242	84.819	45.127	119.192	1.00	27.19
ATOM	2773	C	THR	C	242	84.806	43.180	116.943	1.00	31.09
ATOM	2774	O	THR	C	242	83.851	42.911	116.214	1.00	32.42
ATOM	2775	N	TYR	C	243	85.289	42.326	117.833	1.00	30.68
ATOM	2776	CA	TYR	C	243	84.679	41.025	118.049	1.00	30.08
ATOM	2777	CB	TYR	C	243	85.686	39.910	117.798	1.00	27.63
ATOM	2778	CG	TYR	C	243	86.089	39.769	116.356	1.00	26.41
ATOM	2779	CD1	TYR	C	243	87.388	40.043	115.951	1.00	26.64
ATOM	2780	CE1	TYR	C	243	87.776	39.888	114.621	1.00	25.57
ATOM	2781	CD2	TYR	C	243	85.176	39.337	115.392	1.00	25.87
ATOM	2782	CE2	TYR	C	243	85.553	39.179	114.064	1.00	23.60
ATOM	2783	CZ	TYR	C	243	86.856	39.458	113.687	1.00	24.34
ATOM	2784	OH	TYR	C	243	87.247	39.325	112.372	1.00	26.49
ATOM	2785	C	TYR	C	243	84.232	40.988	119.497	1.00	31.15
ATOM	2786	O	TYR	C	243	84.794	41.674	120.350	1.00	33.46
ATOM	2787	N	GLN	C	244	83.210	40.208	119.786	1.00	30.47
ATOM	2788	CA	GLN	C	244	82.761	40.129	121.150	1.00	31.36
ATOM	2789	CB	GLN	C	244	81.272	40.406	121.229	1.00	35.16
ATOM	2790	CG	GLN	C	244	80.774	40.695	122.627	1.00	42.83
ATOM	2791	CD	GLN	C	244	79.267	40.912	122.649	1.00	49.87
ATOM	2792	OE1	GLN	C	244	78.681	41.359	121.649	1.00	51.89
ATOM	2793	NE2	GLN	C	244	78.630	40.611	123.786	1.00	50.55
ATOM	2794	C	GLN	C	244	83.049	38.728	121.622	1.00	30.33
ATOM	2795	O	GLN	C	244	82.662	37.760	120.966	1.00	29.04
ATOM	2796	N	LEU	C	245	83.760	38.617	122.740	1.00	28.79
ATOM	2797	CA	LEU	C	245	84.066	37.312	123.296	1.00	28.04
ATOM	2798	CB	LEU	C	245	85.542	37.191	123.673	1.00	26.24
ATOM	2799	CG	LEU	C	245	85.901	35.821	124.266	1.00	25.15
ATOM	2800	CD1	LEU	C	245	85.824	34.789	123.168	1.00	24.09
ATOM	2801	CD2	LEU	C	245	87.290	35.826	124.892	1.00	25.19
ATOM	2802	C	LEU	C	245	83.220	37.063	124.531	1.00	28.41
ATOM	2803	O	LEU	C	245	83.077	37.919	125.405	1.00	27.19
ATOM	2804	N	ASP	C	246	82.634	35.882	124.581	1.00	30.12

Table I

ATOM	2805	CA	ASP	C	246	81.841	35.511	125.725	1.00	32.19
ATOM	2806	CB	ASP	C	246	80.360	35.611	125.400	1.00	32.80
ATOM	2807	CG	ASP	C	246	79.522	35.787	126.639	1.00	35.79
ATOM	2808	OD1	ASP	C	246	78.374	36.272	126.521	1.00	37.26
ATOM	2809	OD2	ASP	C	246	80.024	35.437	127.733	1.00	34.78
ATOM	2810	C	ASP	C	246	82.235	34.087	126.091	1.00	33.34
ATOM	2811	O	ASP	C	246	82.141	33.174	125.259	1.00	32.58
ATOM	2812	N	VAL	C	247	82.721	33.910	127.321	1.00	33.68
ATOM	2813	CA	VAL	C	247	83.135	32.590	127.788	1.00	32.59
ATOM	2814	CB	VAL	C	247	84.548	32.619	128.391	1.00	32.83
ATOM	2815	CG1	VAL	C	247	84.938	31.224	128.835	1.00	32.26
ATOM	2816	CG2	VAL	C	247	85.545	33.148	127.367	1.00	31.39
ATOM	2817	C	VAL	C	247	82.163	32.034	128.817	1.00	32.34
ATOM	2818	O	VAL	C	247	81.802	32.716	129.780	1.00	31.84
ATOM	2819	N	VAL	C	248	81.733	30.795	128.597	1.00	32.98
ATOM	2820	CA	VAL	C	248	80.793	30.136	129.498	1.00	33.49
ATOM	2821	CB	VAL	C	248	79.570	29.572	128.717	1.00	33.49
ATOM	2822	CG1	VAL	C	248	78.692	28.737	129.622	1.00	33.78
ATOM	2823	CG2	VAL	C	248	78.752	30.704	128.162	1.00	36.10
ATOM	2824	C	VAL	C	248	81.458	28.998	130.262	1.00	33.28
ATOM	2825	O	VAL	C	248	82.100	28.134	129.666	1.00	33.59
ATOM	2826	N	GLU	C	249	81.324	29.013	131.584	1.00	33.31
ATOM	2827	CA	GLU	C	249	81.876	27.943	132.412	1.00	34.53
ATOM	2828	CB	GLU	C	249	82.331	28.482	133.770	1.00	34.33
ATOM	2829	CG	GLU	C	249	83.429	29.528	133.694	1.00	37.57
ATOM	2830	CD	GLU	C	249	83.898	30.034	135.071	1.00	38.93
ATOM	2831	OE1	GLU	C	249	83.103	30.664	135.805	1.00	38.35
ATOM	2832	OE2	GLU	C	249	85.077	29.807	135.417	1.00	40.90
ATOM	2833	C	GLU	C	249	80.740	26.947	132.609	1.00	34.31
ATOM	2834	O	GLU	C	249	79.685	27.308	133.124	1.00	37.50
ATOM	2835	N	ARG	C	250	80.952	25.708	132.187	1.00	33.96
ATOM	2836	CA	ARG	C	250	79.945	24.657	132.297	1.00	35.77
ATOM	2837	CB	ARG	C	250	80.162	23.628	131.165	1.00	34.20
ATOM	2838	CG	ARG	C	250	80.369	24.218	129.755	1.00	30.74
ATOM	2839	CD	ARG	C	250	79.167	25.049	129.300	1.00	28.69
ATOM	2840	NE	ARG	C	250	77.936	24.261	129.347	1.00	29.35
ATOM	2841	CZ	ARG	C	250	77.572	23.362	128.433	1.00	29.10
ATOM	2842	NH1	ARG	C	250	78.331	23.134	127.366	1.00	28.71
ATOM	2843	NH2	ARG	C	250	76.470	22.648	128.615	1.00	26.65
ATOM	2844	C	ARG	C	250	80.054	23.962	133.658	1.00	36.77
ATOM	2845	O	ARG	C	250	80.513	24.537	134.629	1.00	38.20
ATOM	2846	N	SER	C	251	79.778	22.667	133.676	1.00	37.38
ATOM	2847	CA	SER	C	251	79.798	21.906	134.923	1.00	37.80
ATOM	2848	CB	SER	C	251	78.832	22.507	135.964	1.00	37.79
ATOM	2849	OG	SER	C	251	79.340	23.672	136.592	1.00	37.54
ATOM	2850	C	SER	C	251	79.318	20.502	134.627	1.00	37.89
ATOM	2851	O	SER	C	251	78.154	20.183	134.867	1.00	38.84
ATOM	2852	N	PRO	C	252	80.198	19.648	134.096	1.00	37.82
ATOM	2853	CD	PRO	C	252	81.504	19.973	133.497	1.00	38.36
ATOM	2854	CA	PRO	C	252	79.799	18.277	133.785	1.00	37.98
ATOM	2855	CB	PRO	C	252	80.842	17.841	132.759	1.00	38.53
ATOM	2856	CG	PRO	C	252	82.055	18.608	133.169	1.00	38.58
ATOM	2857	C	PRO	C	252	79.719	17.357	134.998	1.00	38.19
ATOM	2858	O	PRO	C	252	80.529	16.450	135.177	1.00	37.38
ATOM	2859	N	HIS	C	253	78.726	17.613	135.838	1.00	39.36

Table 1

ATOM	2860	CA	HIS	C	253	78.491	16.799	137.023	1.00	40.22
ATOM	2861	CB	HIS	C	253	79.254	17.347	138.247	1.00	41.83
ATOM	2862	CG	HIS	C	253	78.984	18.791	138.548	1.00	44.50
ATOM	2863	CD2	HIS	C	253	79.828	19.820	138.801	1.00	45.38
ATOM	2864	ND1	HIS	C	253	77.709	19.313	138.636	1.00	45.96
ATOM	2865	CE1	HIS	C	253	77.783	20.602	138.926	1.00	46.89
ATOM	2866	NE2	HIS	C	253	79.056	20.935	139.032	1.00	45.49
ATOM	2867	C	HIS	C	253	76.993	16.749	137.306	1.00	38.23
ATOM	2868	O	HIS	C	253	76.241	17.606	136.836	1.00	37.80
ATOM	2869	N	ARG	C	254	76.572	15.733	138.059	1.00	36.30
ATOM	2870	CA	ARG	C	254	75.168	15.556	138.421	1.00	34.25
ATOM	2871	CB	ARG	C	254	74.997	14.301	139.288	1.00	37.38
ATOM	2872	CG	ARG	C	254	75.649	14.336	140.668	1.00	39.79
ATOM	2873	CD	ARG	C	254	75.434	12.983	141.340	1.00	44.46
ATOM	2874	NE	ARG	C	254	75.468	13.019	142.806	1.00	50.17
ATOM	2875	CZ	ARG	C	254	76.573	13.142	143.541	1.00	53.52
ATOM	2876	NH1	ARG	C	254	77.768	13.245	142.953	1.00	54.83
ATOM	2877	NH2	ARG	C	254	76.483	13.154	144.871	1.00	52.76
ATOM	2878	C	ARG	C	254	74.654	16.786	139.158	1.00	30.25
ATOM	2879	O	ARG	C	254	75.437	17.596	139.622	1.00	28.91
ATOM	2880	N	PRO	C	255	73.323	16.940	139.276	1.00	29.24
ATOM	2881	CD	PRO	C	255	72.241	16.051	138.809	1.00	28.68
ATOM	2882	CA	PRO	C	255	72.769	18.117	139.970	1.00	28.11
ATOM	2883	CB	PRO	C	255	71.252	17.913	139.873	1.00	27.02
ATOM	2884	CG	PRO	C	255	71.093	17.022	138.647	1.00	27.40
ATOM	2885	C	PRO	C	255	73.237	18.283	141.416	1.00	27.39
ATOM	2886	O	PRO	C	255	73.644	17.323	142.068	1.00	27.72
ATOM	2887	N	ILE	C	256	73.187	19.515	141.902	1.00	27.12
ATOM	2888	CA	ILE	C	256	73.600	19.844	143.262	1.00	28.10
ATOM	2889	CB	ILE	C	256	74.789	20.863	143.273	1.00	28.02
ATOM	2890	CG2	ILE	C	256	75.094	21.336	144.685	1.00	27.93
ATOM	2891	CG1	ILE	C	256	76.019	20.237	142.642	1.00	27.41
ATOM	2892	CD1	ILE	C	256	75.860	20.080	141.138	1.00	30.37
ATOM	2893	C	ILE	C	256	72.422	20.506	143.977	1.00	29.88
ATOM	2894	O	ILE	C	256	71.857	21.484	143.472	1.00	31.33
ATOM	2895	N	LEU	C	257	72.046	19.979	145.141	1.00	28.88
ATOM	2896	CA	LEU	C	257	70.948	20.565	145.906	1.00	28.81
ATOM	2897	CB	LEU	C	257	70.072	19.490	146.560	1.00	28.93
ATOM	2898	CG	LEU	C	257	69.503	18.267	145.841	1.00	29.79
ATOM	2899	CD1	LEU	C	257	68.145	17.994	146.496	1.00	28.42
ATOM	2900	CD2	LEU	C	257	69.358	18.471	144.328	1.00	28.81
ATOM	2901	C	LEU	C	257	71.543	21.420	147.022	1.00	28.68
ATOM	2902	O	LEU	C	257	72.554	21.050	147.619	1.00	26.80
ATOM	2903	N	GLN	C	258	70.930	22.563	147.316	1.00	29.62
ATOM	2904	CA	GLN	C	258	71.464	23.397	148.394	1.00	30.80
ATOM	2905	CB	GLN	C	258	70.655	24.690	148.565	1.00	26.27
ATOM	2906	C	GLN	C	258	71.387	22.572	149.675	1.00	31.63
ATOM	2907	O	GLN	C	258	70.370	21.923	149.955	1.00	33.97
ATOM	2908	N	ALA	C	259	72.475	22.566	150.434	1.00	31.33
ATOM	2909	CA	ALA	C	259	72.504	21.838	151.690	1.00	29.04
ATOM	2910	CB	ALA	C	259	73.877	21.924	152.309	1.00	26.39
ATOM	2911	C	ALA	C	259	71.488	22.494	152.615	1.00	29.26
ATOM	2912	O	ALA	C	259	71.310	23.715	152.578	1.00	28.97
ATOM	2913	N	GLY	C	260	70.814	21.687	153.430	1.00	28.01
ATOM	2914	CA	GLY	C	260	69.857	22.238	154.364	1.00	27.52

Table 1

ATOM	2915	C	GLY	C	260	68.420	22.312	153.887	1.00	29.28
ATOM	2916	O	GLY	C	260	67.538	22.690	154.665	1.00	29.52
ATOM	2917	N	LEU	C	261	68.176	21.975	152.621	1.00	28.79
ATOM	2918	CA	LEU	C	261	66.821	21.992	152.083	1.00	27.73
ATOM	2919	CB	LEU	C	261	66.566	23.241	151.250	1.00	27.45
ATOM	2920	CG	LEU	C	261	66.738	24.596	151.931	1.00	25.25
ATOM	2921	CD1	LEU	C	261	66.114	25.630	151.015	1.00	25.20
ATOM	2922	CD2	LEU	C	261	66.070	24.621	153.307	1.00	20.64
ATOM	2923	C	LEU	C	261	66.552	20.767	151.232	1.00	28.46
ATOM	2924	O	LEU	C	261	67.408	20.334	150.456	1.00	29.87
ATOM	2925	N	PRO	C	262	65.348	20.191	151.361	1.00	28.64
ATOM	2926	CD	PRO	C	262	64.953	18.948	150.677	1.00	26.13
ATOM	2927	CA	PRO	C	262	64.280	20.653	152.254	1.00	28.75
ATOM	2928	CB	PRO	C	262	63.106	19.760	151.866	1.00	28.38
ATOM	2929	CG	PRO	C	262	63.782	18.489	151.513	1.00	27.61
ATOM	2930	C	PRO	C	262	64.689	20.467	153.702	1.00	28.93
ATOM	2931	O	PRO	C	262	65.559	19.653	154.003	1.00	31.23
ATOM	2932	N	ALA	C	263	64.063	21.215	154.599	1.00	29.04
ATOM	2933	CA	ALA	C	263	64.390	21.115	156.018	1.00	28.73
ATOM	2934	CB	ALA	C	263	64.586	22.507	156.600	1.00	28.57
ATOM	2935	C	ALA	C	263	63.294	20.393	156.778	1.00	28.84
ATOM	2936	O	ALA	C	263	62.130	20.427	156.390	1.00	28.55
ATOM	2937	N	ASN	C	264	63.665	19.728	157.859	1.00	29.84
ATOM	2938	CA	ASN	C	264	62.667	19.044	158.655	1.00	32.61
ATOM	2939	CB	ASN	C	264	63.339	18.304	159.818	1.00	32.86
ATOM	2940	CG	ASN	C	264	64.203	17.129	159.346	1.00	33.45
ATOM	2941	OD1	ASN	C	264	63.767	16.300	158.540	1.00	33.24
ATOM	2942	ND2	ASN	C	264	65.424	17.052	159.854	1.00	34.09
ATOM	2943	C	ASN	C	264	61.676	20.097	159.161	1.00	33.97
ATOM	2944	O	ASN	C	264	62.068	21.234	159.457	1.00	35.75
ATOM	2945	N	LYS	C	265	60.397	19.723	159.232	1.00	33.81
ATOM	2946	CA	LYS	C	265	59.340	20.626	159.683	1.00	32.75
ATOM	2947	CB	LYS	C	265	58.442	21.021	158.513	1.00	30.60
ATOM	2948	CG	LYS	C	265	59.151	21.251	157.207	1.00	28.61
ATOM	2949	CD	LYS	C	265	59.994	22.491	157.247	1.00	28.14
ATOM	2950	CE	LYS	C	265	59.395	23.532	156.356	1.00	29.00
ATOM	2951	NZ	LYS	C	265	59.110	22.963	155.024	1.00	29.54
ATOM	2952	C	LYS	C	265	58.452	19.952	160.715	1.00	33.94
ATOM	2953	O	LYS	C	265	58.007	18.829	160.506	1.00	35.83
ATOM	2954	N	THR	C	266	58.202	20.618	161.831	1.00	34.46
ATOM	2955	CA	THR	C	266	57.283	20.074	162.824	1.00	34.80
ATOM	2956	CB	THR	C	266	57.904	19.999	164.246	1.00	33.05
ATOM	2957	OG1	THR	C	266	58.856	18.924	164.309	1.00	29.77
ATOM	2958	CG2	THR	C	266	56.822	19.768	165.280	1.00	30.67
ATOM	2959	C	THR	C	266	56.116	21.060	162.809	1.00	36.69
ATOM	2960	O	THR	C	266	56.316	22.268	162.924	1.00	36.47
ATOM	2961	N	VAL	C	267	54.903	20.557	162.627	1.00	38.51
ATOM	2962	CA	VAL	C	267	53.744	21.435	162.585	1.00	41.41
ATOM	2963	CB	VAL	C	267	53.387	21.793	161.122	1.00	40.72
ATOM	2964	CG1	VAL	C	267	54.591	22.437	160.440	1.00	40.16
ATOM	2965	CG2	VAL	C	267	52.947	20.546	160.366	1.00	40.17
ATOM	2966	C	VAL	C	267	52.521	20.840	163.287	1.00	43.88
ATOM	2967	O	VAL	C	267	52.533	19.676	163.711	1.00	44.81
ATOM	2968	N	ALA	C	268	51.475	21.654	163.420	1.00	45.61
ATOM	2969	CA	ALA	C	268	50.246	21.229	164.075	1.00	46.72

Table 1

ATOM	2970	CB	ALA	C	268	49.595	22.410	164.763	1.00	47.07
ATOM	2971	C	ALA	C	268	49.296	20.635	163.054	1.00	47.68
ATOM	2972	O	ALA	C	268	49.272	21.056	161.898	1.00	47.58
ATOM	2973	N	LEU	C	269	48.520	19.647	163.481	1.00	48.97
ATOM	2974	CA	LEU	C	269	47.563	19.008	162.593	1.00	49.91
ATOM	2975	CB	LEU	C	269	46.675	18.044	163.390	1.00	51.98
ATOM	2976	CG	LEU	C	269	45.568	17.292	162.645	1.00	54.75
ATOM	2977	CD1	LEU	C	269	45.328	15.925	163.300	1.00	55.71
ATOM	2978	CD2	LEU	C	269	44.290	18.139	162.639	1.00	55.58
ATOM	2979	C	LEU	C	269	46.721	20.087	161.923	1.00	48.50
ATOM	2980	O	LEU	C	269	46.225	20.987	162.584	1.00	48.65
ATOM	2981	N	GLY	C	270	46.592	20.016	160.607	1.00	48.14
ATOM	2982	CA	GLY	C	270	45.795	20.999	159.901	1.00	48.37
ATOM	2983	C	GLY	C	270	46.556	22.163	159.297	1.00	47.96
ATOM	2984	O	GLY	C	270	45.988	22.941	158.525	1.00	48.79
ATOM	2985	N	SER	C	271	47.834	22.285	159.632	1.00	47.43
ATOM	2986	CA	SER	C	271	48.664	23.371	159.109	1.00	47.85
ATOM	2987	CB	SER	C	271	50.043	23.337	159.769	1.00	45.66
ATOM	2988	OG	SER	C	271	49.938	23.210	161.171	1.00	44.73
ATOM	2989	C	SER	C	271	48.858	23.296	157.593	1.00	48.34
ATOM	2990	O	SER	C	271	48.412	22.363	156.936	1.00	48.78
ATOM	2991	N	ASN	C	272	49.541	24.291	157.050	1.00	48.71
ATOM	2992	CA	ASN	C	272	49.832	24.335	155.628	1.00	50.82
ATOM	2993	CB	ASN	C	272	49.206	25.563	154.969	1.00	53.33
ATOM	2994	CG	ASN	C	272	47.752	25.369	154.639	1.00	55.48
ATOM	2995	OD1	ASN	C	272	47.377	24.398	153.983	1.00	57.95
ATOM	2996	ND2	ASN	C	272	46.919	26.303	155.078	1.00	57.55
ATOM	2997	C	ASN	C	272	51.337	24.437	155.474	1.00	50.91
ATOM	2998	O	ASN	C	272	51.885	25.539	155.492	1.00	52.42
ATOM	2999	N	VAL	C	273	52.011	23.304	155.320	1.00	48.89
ATOM	3000	CA	VAL	C	273	53.459	23.323	155.167	1.00	46.82
ATOM	3001	CB	VAL	C	273	54.099	22.146	155.931	1.00	47.39
ATOM	3002	CG1	VAL	C	273	53.438	20.863	155.529	1.00	48.39
ATOM	3003	CG2	VAL	C	273	55.587	22.079	155.654	1.00	48.76
ATOM	3004	C	VAL	C	273	53.874	23.265	153.702	1.00	44.84
ATOM	3005	O	VAL	C	273	53.117	22.783	152.858	1.00	45.60
ATOM	3006	N	GLU	C	274	55.060	23.794	153.402	1.00	42.50
ATOM	3007	CA	GLU	C	274	55.591	23.756	152.042	1.00	41.08
ATOM	3008	CB	GLU	C	274	55.197	25.008	151.260	1.00	42.81
ATOM	3009	CG	GLU	C	274	55.946	26.261	151.641	1.00	48.27
ATOM	3010	CD	GLU	C	274	55.372	27.499	150.969	1.00	50.91
ATOM	3011	OE1	GLU	C	274	54.191	27.820	151.232	1.00	52.00
ATOM	3012	OE2	GLU	C	274	56.093	28.149	150.179	1.00	52.04
ATOM	3013	C	GLU	C	274	57.112	23.606	152.093	1.00	38.22
ATOM	3014	O	GLU	C	274	57.798	24.370	152.764	1.00	35.80
ATOM	3015	N	PHE	C	275	57.623	22.597	151.391	1.00	35.82
ATOM	3016	CA	PHE	C	275	59.056	22.303	151.356	1.00	32.70
ATOM	3017	CB	PHE	C	275	59.286	20.793	151.208	1.00	27.90
ATOM	3018	CG	PHE	C	275	59.061	20.007	152.468	1.00	21.37
ATOM	3019	CD1	PHE	C	275	60.002	20.013	153.479	1.00	19.05
ATOM	3020	CD2	PHE	C	275	57.906	19.257	152.638	1.00	18.11
ATOM	3021	CE1	PHE	C	275	59.792	19.283	154.643	1.00	18.55
ATOM	3022	CE2	PHE	C	275	57.693	18.532	153.790	1.00	14.62
ATOM	3023	CZ	PHE	C	275	58.631	18.540	154.794	1.00	15.13
ATOM	3024	C	PHE	C	275	59.759	22.996	150.209	1.00	32.68

Table I

ATOM	3025	O	PHE	C	275	59.141	23.364	149.218	1.00	33.88
ATOM	3026	N	MET	C	276	61.065	23.157	150.340	1.00	32.88
ATOM	3027	CA	MET	C	276	61.841	23.775	149.285	1.00	33.50
ATOM	3028	CB	MET	C	276	62.421	25.098	149.737	1.00	36.46
ATOM	3029	CG	MET	C	276	61.437	26.185	150.011	1.00	40.85
ATOM	3030	SD	MET	C	276	62.424	27.650	150.433	1.00	48.53
ATOM	3031	CE	MET	C	276	62.803	28.305	148.751	1.00	46.73
ATOM	3032	C	MET	C	276	62.992	22.884	148.870	1.00	32.74
ATOM	3033	O	MET	C	276	63.441	22.022	149.619	1.00	32.54
ATOM	3034	N	CYS	C	277	63.481	23.120	147.668	1.00	31.31
ATOM	3035	CA	CYS	C	277	64.604	22.364	147.154	1.00	31.22
ATOM	3036	C	CYS	C	277	65.294	23.247	146.119	1.00	30.72
ATOM	3037	O	CYS	C	277	64.716	23.566	145.078	1.00	32.01
ATOM	3038	CB	CYS	C	277	64.109	21.078	146.521	1.00	30.12
ATOM	3039	SG	CYS	C	277	65.424	19.895	146.128	1.00	31.69
ATOM	3040	N	LYS	C	278	66.521	23.663	146.409	1.00	28.06
ATOM	3041	CA	LYS	C	278	67.227	24.529	145.488	1.00	25.72
ATOM	3042	CB	LYS	C	278	67.877	25.677	146.277	1.00	16.91
ATOM	3043	C	LYS	C	278	68.234	23.684	144.690	1.00	25.74
ATOM	3044	O	LYS	C	278	69.202	23.148	145.236	1.00	27.31
ATOM	3045	N	VAL	C	279	67.981	23.552	143.392	1.00	26.14
ATOM	3046	CA	VAL	C	279	68.839	22.742	142.518	1.00	26.68
ATOM	3047	CB	VAL	C	279	67.980	21.824	141.568	1.00	24.83
ATOM	3048	CG1	VAL	C	279	68.870	20.894	140.757	1.00	22.99
ATOM	3049	CG2	VAL	C	279	67.001	21.015	142.373	1.00	24.61
ATOM	3050	C	VAL	C	279	69.777	23.563	141.644	1.00	27.32
ATOM	3051	O	VAL	C	279	69.516	24.726	141.342	1.00	27.26
ATOM	3052	N	TYR	C	280	70.881	22.940	141.252	1.00	28.89
ATOM	3053	CA	TYR	C	280	71.851	23.568	140.370	1.00	29.97
ATOM	3054	CB	TYR	C	280	73.067	24.114	141.133	1.00	31.04
ATOM	3055	CG	TYR	C	280	74.121	24.607	140.172	1.00	32.86
ATOM	3056	CD1	TYR	C	280	73.934	25.798	139.464	1.00	34.02
ATOM	3057	CE1	TYR	C	280	74.795	26.177	138.430	1.00	33.55
ATOM	3058	CD2	TYR	C	280	75.215	23.806	139.834	1.00	34.24
ATOM	3059	CE2	TYR	C	280	76.081	24.170	138.799	1.00	36.13
ATOM	3060	CZ	TYR	C	280	75.856	25.359	138.098	1.00	36.27
ATOM	3061	OH	TYR	C	280	76.661	25.705	137.038	1.00	38.38
ATOM	3062	C	TYR	C	280	72.316	22.510	139.389	1.00	30.13
ATOM	3063	O	TYR	C	280	72.720	21.423	139.783	1.00	31.45
ATOM	3064	N	SER	C	281	72.264	22.829	138.109	1.00	31.21
ATOM	3065	CA	SER	C	281	72.697	21.882	137.099	1.00	31.69
ATOM	3066	CB	SER	C	281	71.584	20.857	136.851	1.00	31.08
ATOM	3067	OG	SER	C	281	71.973	19.883	135.902	1.00	30.86
ATOM	3068	C	SER	C	281	72.988	22.660	135.827	1.00	32.60
ATOM	3069	O	SER	C	281	72.254	23.597	135.493	1.00	31.43
ATOM	3070	N	ASP	C	282	74.073	22.305	135.140	1.00	34.32
ATOM	3071	CA	ASP	C	282	74.388	22.971	133.887	1.00	33.65
ATOM	3072	CB	ASP	C	282	75.809	22.650	133.424	1.00	37.97
ATOM	3073	CG	ASP	C	282	76.115	23.218	132.050	1.00	41.38
ATOM	3074	OD1	ASP	C	282	77.316	23.423	131.752	1.00	41.95
ATOM	3075	OD2	ASP	C	282	75.159	23.450	131.268	1.00	42.76
ATOM	3076	C	ASP	C	282	73.341	22.389	132.946	1.00	32.33
ATOM	3077	O	ASP	C	282	72.436	23.100	132.516	1.00	32.71
ATOM	3078	N	PRO	C	283	73.425	21.083	132.633	1.00	30.93
ATOM	3079	CD	PRO	C	283	74.459	20.080	132.962	1.00	30.14

Table I

ATOM	3080	CA	PRO	C	283	72.403	20.521	131.735	1.00	29.60
ATOM	3081	CB	PRO	C	283	72.932	19.120	131.434	1.00	29.84
ATOM	3082	CG	PRO	C	283	73.752	18.782	132.662	1.00	30.68
ATOM	3083	C	PRO	C	283	71.070	20.487	132.474	1.00	29.59
ATOM	3084	O	PRO	C	283	71.050	20.319	133.691	1.00	30.32
ATOM	3085	N	GLN	C	284	69.959	20.638	131.757	1.00	30.43
ATOM	3086	CA	GLN	C	284	68.641	20.647	132.406	1.00	29.42
ATOM	3087	CB	GLN	C	284	67.488	20.630	131.383	1.00	29.76
ATOM	3088	CG	GLN	C	284	67.422	21.820	130.459	1.00	30.05
ATOM	3089	CD	GLN	C	284	67.326	23.142	131.189	1.00	30.62
ATOM	3090	OE1	GLN	C	284	67.695	24.177	130.648	1.00	33.73
ATOM	3091	NE2	GLN	C	284	66.821	23.120	132.411	1.00	31.19
ATOM	3092	C	GLN	C	284	68.421	19.486	133.363	1.00	28.08
ATOM	3093	O	GLN	C	284	68.585	18.315	133.008	1.00	26.14
ATOM	3094	N	PRO	C	285	68.046	19.798	134.599	1.00	27.57
ATOM	3095	CD	PRO	C	285	68.156	21.115	135.249	1.00	27.54
ATOM	3096	CA	PRO	C	285	67.802	18.754	135.589	1.00	28.78
ATOM	3097	CB	PRO	C	285	68.239	19.411	136.883	1.00	28.36
ATOM	3098	CG	PRO	C	285	67.739	20.807	136.684	1.00	28.33
ATOM	3099	C	PRO	C	285	66.324	18.340	135.635	1.00	29.46
ATOM	3100	O	PRO	C	285	65.411	19.147	135.404	1.00	29.73
ATOM	3101	N	HIS	C	286	66.092	17.068	135.918	1.00	30.11
ATOM	3102	CA	HIS	C	286	64.733	16.581	136.036	1.00	30.34
ATOM	3103	CB	HIS	C	286	64.560	15.233	135.345	1.00	33.50
ATOM	3104	CG	HIS	C	286	63.137	14.776	135.305	1.00	37.45
ATOM	3105	CD2	HIS	C	286	62.003	15.439	134.980	1.00	37.57
ATOM	3106	ND1	HIS	C	286	62.749	13.500	135.654	1.00	37.58
ATOM	3107	CE1	HIS	C	286	61.438	13.398	135.548	1.00	37.31
ATOM	3108	NE2	HIS	C	286	60.962	14.560	135.140	1.00	38.77
ATOM	3109	C	HIS	C	286	64.476	16.425	137.525	1.00	28.51
ATOM	3110	O	HIS	C	286	65.063	15.555	138.170	1.00	28.43
ATOM	3111	N	ILE	C	287	63.616	17.286	138.064	1.00	27.36
ATOM	3112	CA	ILE	C	287	63.275	17.272	139.483	1.00	24.48
ATOM	3113	CB	ILE	C	287	63.139	18.705	140.019	1.00	22.01
ATOM	3114	CG2	ILE	C	287	62.670	18.695	141.476	1.00	18.21
ATOM	3115	CG1	ILE	C	287	64.475	19.418	139.841	1.00	17.88
ATOM	3116	CD1	ILE	C	287	64.419	20.889	140.118	1.00	20.45
ATOM	3117	C	ILE	C	287	61.986	16.506	139.743	1.00	24.82
ATOM	3118	O	ILE	C	287	61.117	16.418	138.877	1.00	25.02
ATOM	3119	N	GLN	C	288	61.869	15.960	140.948	1.00	24.37
ATOM	3120	CA	GLN	C	288	60.704	15.183	141.314	1.00	23.98
ATOM	3121	CB	GLN	C	288	60.864	13.780	140.735	1.00	23.04
ATOM	3122	CG	GLN	C	288	59.666	12.871	140.893	1.00	24.04
ATOM	3123	CD	GLN	C	288	59.859	11.546	140.180	1.00	23.43
ATOM	3124	OE1	GLN	C	288	59.223	11.266	139.155	1.00	21.63
ATOM	3125	NE2	GLN	C	288	60.755	10.724	140.713	1.00	23.17
ATOM	3126	C	GLN	C	288	60.575	15.130	142.824	1.00	22.93
ATOM	3127	O	GLN	C	288	61.572	15.129	143.523	1.00	24.35
ATOM	3128	N	TRP	C	289	59.348	15.117	143.331	1.00	23.58
ATOM	3129	CA	TRP	C	289	59.142	15.036	144.775	1.00	25.79
ATOM	3130	CB	TRP	C	289	58.254	16.175	145.295	1.00	25.56
ATOM	3131	CG	TRP	C	289	58.933	17.506	145.344	1.00	25.50
ATOM	3132	CD2	TRP	C	289	59.645	18.069	146.455	1.00	24.57
ATOM	3133	CE2	TRP	C	289	60.132	19.331	146.042	1.00	24.75
ATOM	3134	CE3	TRP	C	289	59.921	17.630	147.761	1.00	24.41

Table I

ATOM	3135	CD1	TRP	C	289	59.015	18.421	144.331	1.00	25.66
ATOM	3136	NE1	TRP	C	289	59.731	19.520	144.743	1.00	25.92
ATOM	3137	CZ2	TRP	C	289	60.881	20.161	146.883	1.00	22.40
ATOM	3138	CZ3	TRP	C	289	60.665	18.451	148.600	1.00	21.27
ATOM	3139	CH2	TRP	C	289	61.137	19.706	148.152	1.00	24.99
ATOM	3140	C	TRP	C	289	58.502	13.709	145.125	1.00	25.97
ATOM	3141	O	TRP	C	289	57.590	13.261	144.437	1.00	27.01
ATOM	3142	N	LEU	C	290	58.983	13.089	146.198	1.00	26.09
ATOM	3143	CA	LEU	C	290	58.471	11.801	146.643	1.00	27.29
ATOM	3144	CB	LEU	C	290	59.505	10.698	146.424	1.00	29.58
ATOM	3145	CG	LEU	C	290	59.621	10.020	145.068	1.00	31.88
ATOM	3146	CD1	LEU	C	290	59.875	11.031	143.947	1.00	33.27
ATOM	3147	CD2	LEU	C	290	60.752	9.027	145.170	1.00	33.26
ATOM	3148	C	LEU	C	290	58.156	11.790	148.111	1.00	27.39
ATOM	3149	O	LEU	C	290	58.697	12.586	148.875	1.00	25.52
ATOM	3150	N	LYS	C	291	57.264	10.885	148.498	1.00	28.19
ATOM	3151	CA	LYS	C	291	56.981	10.704	149.907	1.00	29.65
ATOM	3152	CB	LYS	C	291	55.547	10.994	150.298	1.00	29.20
ATOM	3153	CG	LYS	C	291	55.458	10.873	151.802	1.00	28.12
ATOM	3154	CD	LYS	C	291	54.082	10.971	152.347	1.00	31.10
ATOM	3155	CE	LYS	C	291	54.147	10.840	153.863	1.00	34.01
ATOM	3156	NZ	LYS	C	291	52.799	10.966	154.488	1.00	38.80
ATOM	3157	C	LYS	C	291	57.260	9.245	150.201	1.00	30.38
ATOM	3158	O	LYS	C	291	56.877	8.369	149.429	1.00	30.70
ATOM	3159	N	HIS	C	292	57.934	8.984	151.311	1.00	31.77
ATOM	3160	CA	HIS	C	292	58.255	7.617	151.683	1.00	35.38
ATOM	3161	CB	HIS	C	292	59.533	7.606	152.500	1.00	33.90
ATOM	3162	CG	HIS	C	292	60.738	7.971	151.698	1.00	33.72
ATOM	3163	CD2	HIS	C	292	61.298	9.173	151.428	1.00	33.65
ATOM	3164	ND1	HIS	C	292	61.463	7.042	150.986	1.00	32.94
ATOM	3165	CE1	HIS	C	292	62.418	7.656	150.311	1.00	32.86
ATOM	3166	NE2	HIS	C	292	62.340	8.950	150.562	1.00	33.51
ATOM	3167	C	HIS	C	292	57.110	6.976	152.436	1.00	38.27
ATOM	3168	O	HIS	C	292	56.590	7.535	153.402	1.00	39.32
ATOM	3169	N	ILE	C	293	56.740	5.784	151.992	1.00	40.65
ATOM	3170	CA	ILE	C	293	55.616	5.069	152.565	1.00	43.55
ATOM	3171	CB	ILE	C	293	54.598	4.875	151.447	1.00	43.18
ATOM	3172	CG2	ILE	C	293	53.368	4.172	151.951	1.00	44.52
ATOM	3173	CG1	ILE	C	293	54.277	6.252	150.870	1.00	43.20
ATOM	3174	CD1	ILE	C	293	53.296	6.236	149.748	1.00	48.45
ATOM	3175	C	ILE	C	293	55.914	3.737	153.279	1.00	45.41
ATOM	3176	O	ILE	C	293	56.903	3.058	152.976	1.00	45.28
ATOM	3177	N	GLU	C	294	55.068	3.391	154.252	1.00	47.39
ATOM	3178	CA	GLU	C	294	55.204	2.140	155.008	1.00	50.70
ATOM	3179	CB	GLU	C	294	55.286	2.436	156.512	1.00	48.39
ATOM	3180	C	GLU	C	294	53.959	1.310	154.706	1.00	53.03
ATOM	3181	O	GLU	C	294	52.850	1.754	154.971	1.00	54.66
ATOM	3182	N	VAL	C	295	54.138	0.104	154.172	1.00	56.24
ATOM	3183	CA	VAL	C	295	53.010	-0.777	153.810	1.00	59.45
ATOM	3184	CB	VAL	C	295	53.401	-1.659	152.576	1.00	58.62
ATOM	3185	CG1	VAL	C	295	52.315	-2.666	152.255	1.00	58.90
ATOM	3186	CG2	VAL	C	295	53.639	-0.773	151.363	1.00	56.91
ATOM	3187	C	VAL	C	295	52.538	-1.684	154.972	1.00	61.72
ATOM	3188	O	VAL	C	295	51.394	-2.158	155.024	1.00	61.54
ATOM	3189	N	ASN	C	296	53.456	-1.910	155.894	1.00	63.81

Table 1

ATOM	3190	CA	ASN	C	296	53.269	-2.698	157.106	1.00	65.79
ATOM	3191	CB	ASN	C	296	53.574	-4.182	156.835	1.00	66.07
ATOM	3192	CG	ASN	C	296	54.812	-4.374	155.927	1.00	68.22
ATOM	3193	OD1	ASN	C	296	55.165	-3.493	155.123	1.00	67.63
ATOM	3194	ND2	ASN	C	296	55.463	-5.543	156.041	1.00	69.60
ATOM	3195	C	ASN	C	296	54.325	-2.053	157.992	1.00	66.21
ATOM	3196	O	ASN	C	296	54.159	-0.911	158.405	1.00	66.39
ATOM	3197	N	GLY	C	297	55.423	-2.736	158.269	1.00	66.33
ATOM	3198	CA	GLY	C	297	56.433	-2.093	159.083	1.00	65.88
ATOM	3199	C	GLY	C	297	57.435	-1.460	158.144	1.00	65.04
ATOM	3200	O	GLY	C	297	57.835	-0.300	158.298	1.00	66.23
ATOM	3201	N	SER	C	298	57.778	-2.241	157.125	1.00	63.11
ATOM	3202	CA	SER	C	298	58.756	-1.883	156.112	1.00	60.17
ATOM	3203	CB	SER	C	298	58.975	-3.063	155.157	1.00	60.95
ATOM	3204	OG	SER	C	298	57.808	-3.351	154.398	1.00	61.30
ATOM	3205	C	SER	C	298	58.442	-0.636	155.314	1.00	57.83
ATOM	3206	O	SER	C	298	57.289	-0.362	154.962	1.00	55.90
ATOM	3207	N	LYS	C	299	59.506	0.125	155.073	1.00	55.35
ATOM	3208	CA	LYS	C	299	59.459	1.354	154.298	1.00	54.04
ATOM	3209	CB	LYS	C	299	60.202	2.486	155.025	1.00	55.85
ATOM	3210	CG	LYS	C	299	59.887	2.568	156.509	1.00	58.61
ATOM	3211	CD	LYS	C	299	59.571	3.993	156.978	1.00	61.21
ATOM	3212	CE	LYS	C	299	59.026	3.968	158.416	1.00	62.47
ATOM	3213	NZ	LYS	C	299	58.761	5.317	158.980	1.00	62.32
ATOM	3214	C	LYS	C	299	60.198	0.963	153.025	1.00	51.29
ATOM	3215	O	LYS	C	299	60.307	1.742	152.074	1.00	52.29
ATOM	3216	N	ILE	C	300	60.708	-0.265	153.042	1.00	46.86
ATOM	3217	CA	ILE	C	300	61.421	-0.842	151.915	1.00	43.84
ATOM	3218	CB	ILE	C	300	62.868	-1.185	152.268	1.00	43.48
ATOM	3219	CG2	ILE	C	300	63.514	-1.946	151.117	1.00	42.81
ATOM	3220	CG1	ILE	C	300	63.652	0.094	152.533	1.00	43.78
ATOM	3221	CD1	ILE	C	300	65.137	-0.146	152.707	1.00	45.12
ATOM	3222	C	ILE	C	300	60.725	-2.125	151.483	1.00	40.85
ATOM	3223	O	ILE	C	300	60.277	-2.900	152.316	1.00	40.80
ATOM	3224	N	GLY	C	301	60.653	-2.352	150.178	1.00	38.10
ATOM	3225	CA	GLY	C	301	59.983	-3.534	149.683	1.00	36.41
ATOM	3226	C	GLY	C	301	60.841	-4.689	149.202	1.00	37.19
ATOM	3227	O	GLY	C	301	62.071	-4.647	149.266	1.00	35.86
ATOM	3228	N	PRO	C	302	60.186	-5.752	148.701	1.00	37.20
ATOM	3229	CD	PRO	C	302	58.725	-5.710	148.469	1.00	36.58
ATOM	3230	CA	PRO	C	302	60.758	-6.993	148.171	1.00	35.86
ATOM	3231	CB	PRO	C	302	59.667	-7.492	147.240	1.00	37.20
ATOM	3232	CG	PRO	C	302	58.415	-7.102	147.979	1.00	36.35
ATOM	3233	C	PRO	C	302	62.065	-6.784	147.433	1.00	36.22
ATOM	3234	O	PRO	C	302	63.050	-7.480	147.677	1.00	37.38
ATOM	3235	N	ASP	C	303	62.053	-5.819	146.522	1.00	36.04
ATOM	3236	CA	ASP	C	303	63.214	-5.484	145.705	1.00	35.56
ATOM	3237	CB	ASP	C	303	62.766	-4.668	144.496	1.00	36.91
ATOM	3238	CG	ASP	C	303	62.023	-3.418	144.892	1.00	40.20
ATOM	3239	OD1	ASP	C	303	61.054	-3.523	145.685	1.00	42.73
ATOM	3240	OD2	ASP	C	303	62.403	-2.330	144.410	1.00	40.82
ATOM	3241	C	ASP	C	303	64.294	-4.712	146.450	1.00	34.79
ATOM	3242	O	ASP	C	303	65.356	-4.451	145.897	1.00	36.36
ATOM	3243	N	ASN	C	304	64.018	-4.352	147.701	1.00	33.31
ATOM	3244	CA	ASN	C	304	64.945	-3.589	148.552	1.00	30.86

Table 1

ATOM	3245	CB	ASN	C	304	66.364	-4.182	148.510	1.00	29.77
ATOM	3246	CG	ASN	C	304	67.167	-3.841	149.758	1.00	28.46
ATOM	3247	OD1	ASN	C	304	66.684	-4.013	150.879	1.00	28.50
ATOM	3248	ND2	ASN	C	304	68.391	-3.362	149.572	1.00	27.02
ATOM	3249	C	ASN	C	304	64.993	-2.090	148.219	1.00	28.19
ATOM	3250	O	ASN	C	304	65.943	-1.382	148.570	1.00	26.02
ATOM	3251	N	LEU	C	305	63.960	-1.627	147.525	1.00	26.97
ATOM	3252	CA	LEU	C	305	63.822	-0.221	147.184	1.00	26.40
ATOM	3253	CB	LEU	C	305	63.367	-0.049	145.746	1.00	25.25
ATOM	3254	CG	LEU	C	305	64.444	-0.319	144.700	1.00	26.05
ATOM	3255	CD1	LEU	C	305	63.876	-0.007	143.342	1.00	23.07
ATOM	3256	CD2	LEU	C	305	65.682	0.533	144.969	1.00	24.19
ATOM	3257	C	LEU	C	305	62.744	0.305	148.108	1.00	26.14
ATOM	3258	O	LEU	C	305	61.854	-0.439	148.503	1.00	26.57
ATOM	3259	N	PRO	C	306	62.819	1.590	148.481	1.00	26.10
ATOM	3260	CD	PRO	C	306	63.836	2.588	148.101	1.00	25.28
ATOM	3261	CA	PRO	C	306	61.816	2.179	149.370	1.00	25.56
ATOM	3262	CB	PRO	C	306	62.455	3.501	149.762	1.00	24.30
ATOM	3263	CG	PRO	C	306	63.188	3.888	148.525	1.00	23.16
ATOM	3264	C	PRO	C	306	60.492	2.376	148.640	1.00	25.91
ATOM	3265	O	PRO	C	306	60.492	2.692	147.452	1.00	25.20
ATOM	3266	N	TYR	C	307	59.371	2.159	149.334	1.00	27.62
ATOM	3267	CA	TYR	C	307	58.062	2.369	148.715	1.00	28.20
ATOM	3268	CB	TYR	C	307	56.905	1.803	149.536	1.00	26.18
ATOM	3269	CG	TYR	C	307	56.993	0.348	149.908	1.00	27.94
ATOM	3270	CD1	TYR	C	307	57.401	-0.026	151.188	1.00	28.66
ATOM	3271	CE1	TYR	C	307	57.417	-1.348	151.585	1.00	29.63
ATOM	3272	CD2	TYR	C	307	56.609	-0.658	149.011	1.00	28.66
ATOM	3273	CE2	TYR	C	307	56.626	-2.010	149.395	1.00	30.48
ATOM	3274	CZ	TYR	C	307	57.031	-2.344	150.697	1.00	31.89
ATOM	3275	OH	TYR	C	307	57.041	-3.660	151.140	1.00	33.12
ATOM	3276	C	TYR	C	307	57.921	3.872	148.712	1.00	29.73
ATOM	3277	O	TYR	C	307	58.328	4.547	149.669	1.00	33.14
ATOM	3278	N	VAL	C	308	57.357	4.413	147.647	1.00	29.62
ATOM	3279	CA	VAL	C	308	57.198	5.854	147.574	1.00	30.67
ATOM	3280	CB	VAL	C	308	58.365	6.549	146.792	1.00	29.93
ATOM	3281	CG1	VAL	C	308	59.674	6.405	147.548	1.00	27.84
ATOM	3282	CG2	VAL	C	308	58.475	5.970	145.385	1.00	28.19
ATOM	3283	C	VAL	C	308	55.914	6.270	146.900	1.00	30.97
ATOM	3284	O	VAL	C	308	55.169	5.455	146.369	1.00	31.26
ATOM	3285	N	GLN	C	309	55.669	7.568	146.936	1.00	31.96
ATOM	3286	CA	GLN	C	309	54.507	8.143	146.301	1.00	32.13
ATOM	3287	CB	GLN	C	309	53.478	8.551	147.343	1.00	35.21
ATOM	3288	CG	GLN	C	309	52.068	8.678	146.790	1.00	39.73
ATOM	3289	CD	GLN	C	309	51.135	9.417	147.740	1.00	43.61
ATOM	3290	OE1	GLN	C	309	51.085	9.130	148.951	1.00	43.88
ATOM	3291	NE2	GLN	C	309	50.383	10.373	147.196	1.00	44.33
ATOM	3292	C	GLN	C	309	55.014	9.369	145.551	1.00	30.79
ATOM	3293	O	GLN	C	309	55.503	10.327	146.164	1.00	30.26
ATOM	3294	N	ILE	C	310	54.921	9.321	144.223	1.00	29.07
ATOM	3295	CA	ILE	C	310	55.371	10.426	143.383	1.00	27.14
ATOM	3296	CB	ILE	C	310	55.444	9.999	141.891	1.00	28.09
ATOM	3297	CG2	ILE	C	310	55.996	11.139	141.033	1.00	26.15
ATOM	3298	CG1	ILE	C	310	56.311	8.737	141.749	1.00	29.18
ATOM	3299	CD1	ILE	C	310	57.788	8.919	142.119	1.00	28.63

Table 1

ATOM	3300	C	ILE	C	310	54.390	11.576	143.537	1.00	25.01
ATOM	3301	O	ILE	C	310	53.251	11.490	143.105	1.00	25.36
ATOM	3302	N	LEU	C	311	54.841	12.653	144.157	1.00	24.70
ATOM	3303	CA	LEU	C	311	53.990	13.814	144.384	1.00	25.69
ATOM	3304	CB	LEU	C	311	54.337	14.445	145.727	1.00	25.71
ATOM	3305	CG	LEU	C	311	54.135	13.504	146.904	1.00	26.24
ATOM	3306	CD1	LEU	C	311	54.581	14.187	148.192	1.00	24.44
ATOM	3307	CD2	LEU	C	311	52.662	13.085	146.951	1.00	24.28
ATOM	3308	C	LEU	C	311	54.055	14.897	143.320	1.00	25.46
ATOM	3309	O	LEU	C	311	53.068	15.573	143.059	1.00	24.77
ATOM	3310	N	LYS	C	312	55.221	15.064	142.713	1.00	28.01
ATOM	3311	CA	LYS	C	312	55.423	16.101	141.708	1.00	28.31
ATOM	3312	CB	LYS	C	312	55.815	17.390	142.416	1.00	26.66
ATOM	3313	CG	LYS	C	312	55.503	18.663	141.688	1.00	27.67
ATOM	3314	CD	LYS	C	312	55.802	19.812	142.648	1.00	31.49
ATOM	3315	CE	LYS	C	312	55.176	21.138	142.240	1.00	32.20
ATOM	3316	NZ	LYS	C	312	55.054	22.009	143.455	1.00	34.04
ATOM	3317	C	LYS	C	312	56.543	15.666	140.777	1.00	29.40
ATOM	3318	O	LYS	C	312	57.539	15.082	141.212	1.00	29.77
ATOM	3319	N	THR	C	313	56.384	15.957	139.494	1.00	31.02
ATOM	3320	CA	THR	C	313	57.379	15.571	138.498	1.00	30.41
ATOM	3321	CB	THR	C	313	56.977	14.268	137.775	1.00	28.36
ATOM	3322	OG1	THR	C	313	56.976	13.177	138.699	1.00	28.72
ATOM	3323	CG2	THR	C	313	57.938	13.963	136.667	1.00	28.33
ATOM	3324	C	THR	C	313	57.455	16.660	137.455	1.00	31.24
ATOM	3325	O	THR	C	313	56.443	17.004	136.836	1.00	32.10
ATOM	3326	N	ALA	C	314	58.652	17.193	137.252	1.00	31.41
ATOM	3327	CA	ALA	C	314	58.833	18.251	136.280	1.00	31.45
ATOM	3328	CB	ALA	C	314	60.237	18.823	136.386	1.00	33.93
ATOM	3329	C	ALA	C	314	58.562	17.751	134.867	1.00	31.70
ATOM	3330	O	ALA	C	314	58.722	16.564	134.553	1.00	29.10
ATOM	3331	N	GLY	C	315	58.139	18.685	134.024	1.00	32.86
ATOM	3332	CA	GLY	C	315	57.841	18.382	132.637	1.00	32.44
ATOM	3333	C	GLY	C	315	56.946	19.480	132.105	1.00	33.40
ATOM	3334	O	GLY	C	315	56.619	20.441	132.825	1.00	31.86
ATOM	3335	N	VAL	C	316	56.540	19.335	130.852	1.00	34.05
ATOM	3336	CA	VAL	C	316	55.671	20.308	130.209	1.00	35.92
ATOM	3337	CB	VAL	C	316	55.232	19.778	128.842	1.00	36.34
ATOM	3338	CG1	VAL	C	316	54.425	20.823	128.120	1.00	39.31
ATOM	3339	CG2	VAL	C	316	56.454	19.377	128.030	1.00	35.78
ATOM	3340	C	VAL	C	316	54.428	20.655	131.046	1.00	37.44
ATOM	3341	O	VAL	C	316	53.952	21.797	131.030	1.00	37.25
ATOM	3342	N	ASN	C	317	53.912	19.675	131.781	1.00	39.86
ATOM	3343	CA	ASN	C	317	52.724	19.890	132.605	1.00	42.60
ATOM	3344	CB	ASN	C	317	52.032	18.554	132.889	1.00	47.26
ATOM	3345	CG	ASN	C	317	51.391	17.949	131.647	1.00	51.28
ATOM	3346	OD1	ASN	C	317	51.088	16.742	131.617	1.00	54.31
ATOM	3347	ND2	ASN	C	317	51.169	18.780	130.617	1.00	48.94
ATOM	3348	C	ASN	C	317	53.043	20.581	133.917	1.00	41.85
ATOM	3349	O	ASN	C	317	52.172	21.186	134.542	1.00	43.36
ATOM	3350	N	THR	C	318	54.296	20.500	134.329	1.00	41.46
ATOM	3351	CA	THR	C	318	54.697	21.103	135.580	1.00	41.12
ATOM	3352	CB	THR	C	318	54.752	20.038	136.666	1.00	40.65
ATOM	3353	OG1	THR	C	318	53.820	18.998	136.341	1.00	38.74
ATOM	3354	CG2	THR	C	318	54.396	20.636	138.009	1.00	40.04

Table 1

ATOM	3355	C	THR	C	318	56.074	21.665	135.354	1.00	41.10
ATOM	3356	O	THR	C	318	57.071	20.983	135.577	1.00	42.97
ATOM	3357	N	THR	C	319	56.115	22.907	134.893	1.00	40.14
ATOM	3358	CA	THR	C	319	57.358	23.602	134.593	1.00	39.06
ATOM	3359	CB	THR	C	319	57.024	24.935	133.912	1.00	39.04
ATOM	3360	OG1	THR	C	319	56.341	24.643	132.692	1.00	38.77
ATOM	3361	CG2	THR	C	319	58.280	25.752	133.604	1.00	40.60
ATOM	3362	C	THR	C	319	58.257	23.829	135.806	1.00	38.67
ATOM	3363	O	THR	C	319	57.785	23.867	136.950	1.00	38.34
ATOM	3364	N	ASP	C	320	59.558	23.966	135.543	1.00	38.76
ATOM	3365	CA	ASP	C	320	60.549	24.192	136.591	1.00	38.55
ATOM	3366	CB	ASP	C	320	61.916	24.518	135.966	1.00	39.25
ATOM	3367	CG	ASP	C	320	62.509	23.331	135.169	1.00	42.22
ATOM	3368	OD1	ASP	C	320	62.255	22.158	135.537	1.00	40.72
ATOM	3369	OD2	ASP	C	320	63.249	23.566	134.182	1.00	43.42
ATOM	3370	C	ASP	C	320	60.091	25.301	137.541	1.00	39.21
ATOM	3371	O	ASP	C	320	60.411	25.297	138.725	1.00	39.71
ATOM	3372	N	LYS	C	321	59.316	26.235	137.019	1.00	40.34
ATOM	3373	CA	LYS	C	321	58.786	27.326	137.816	1.00	42.35
ATOM	3374	CB	LYS	C	321	57.611	27.978	137.065	1.00	45.75
ATOM	3375	CG	LYS	C	321	57.946	28.373	135.620	1.00	48.28
ATOM	3376	CD	LYS	C	321	56.750	28.912	134.826	1.00	47.90
ATOM	3377	CE	LYS	C	321	57.182	29.250	133.386	1.00	48.35
ATOM	3378	NZ	LYS	C	321	56.043	29.601	132.490	1.00	47.69
ATOM	3379	C	LYS	C	321	58.299	26.824	139.177	1.00	42.50
ATOM	3380	O	LYS	C	321	58.761	27.269	140.226	1.00	42.89
ATOM	3381	N	GLU	C	322	57.367	25.880	139.154	1.00	43.54
ATOM	3382	CA	GLU	C	322	56.795	25.348	140.392	1.00	44.10
ATOM	3383	CB	GLU	C	322	55.336	25.006	140.161	1.00	48.31
ATOM	3384	CG	GLU	C	322	55.136	24.231	138.883	1.00	53.89
ATOM	3385	CD	GLU	C	322	54.083	24.874	138.017	1.00	59.22
ATOM	3386	OE1	GLU	C	322	52.923	24.926	138.477	1.00	62.81
ATOM	3387	OE2	GLU	C	322	54.405	25.337	136.894	1.00	62.06
ATOM	3388	C	GLU	C	322	57.474	24.127	140.995	1.00	41.62
ATOM	3389	O	GLU	C	322	57.074	23.672	142.058	1.00	40.29
ATOM	3390	N	MET	C	323	58.504	23.608	140.336	1.00	40.18
ATOM	3391	CA	MET	C	323	59.192	22.413	140.820	1.00	39.72
ATOM	3392	CB	MET	C	323	59.988	21.774	139.680	1.00	39.74
ATOM	3393	CG	MET	C	323	59.121	21.110	138.625	1.00	39.00
ATOM	3394	SD	MET	C	323	57.926	20.007	139.397	1.00	39.79
ATOM	3395	CE	MET	C	323	59.044	18.760	140.122	1.00	39.54
ATOM	3396	C	MET	C	323	60.103	22.524	142.041	1.00	39.88
ATOM	3397	O	MET	C	323	60.452	21.507	142.639	1.00	38.86
ATOM	3398	N	GLU	C	324	60.482	23.738	142.421	1.00	40.42
ATOM	3399	CA	GLU	C	324	61.373	23.914	143.557	1.00	41.47
ATOM	3400	CB	GLU	C	324	62.209	25.174	143.346	1.00	45.26
ATOM	3401	CG	GLU	C	324	63.055	25.135	142.076	1.00	50.92
ATOM	3402	CD	GLU	C	324	64.212	26.137	142.092	1.00	54.85
ATOM	3403	OE1	GLU	C	324	63.950	27.366	142.190	1.00	54.81
ATOM	3404	OE2	GLU	C	324	65.383	25.685	142.006	1.00	55.29
ATOM	3405	C	GLU	C	324	60.697	23.960	144.929	1.00	40.67
ATOM	3406	O	GLU	C	324	61.368	23.958	145.966	1.00	41.14
ATOM	3407	N	VAL	C	325	59.373	23.993	144.953	1.00	39.72
ATOM	3408	CA	VAL	C	325	58.682	24.040	146.232	1.00	38.08
ATOM	3409	CB	VAL	C	325	58.220	25.487	146.546	1.00	36.29

Table 1

ATOM	3410	CG1	VAL	C	325	57.039	25.857	145.672	1.00	36.51
ATOM	3411	CG2	VAL	C	325	57.893	25.633	148.015	1.00	36.14
ATOM	3412	C	VAL	C	325	57.500	23.072	146.254	1.00	38.56
ATOM	3413	O	VAL	C	325	56.651	23.074	145.357	1.00	38.82
ATOM	3414	N	LEU	C	326	57.471	22.216	147.269	1.00	38.14
ATOM	3415	CA	LEU	C	326	56.389	21.255	147.400	1.00	37.67
ATOM	3416	CB	LEU	C	326	56.896	19.891	147.879	1.00	35.37
ATOM	3417	CG	LEU	C	326	55.745	18.891	148.008	1.00	31.23
ATOM	3418	CD1	LEU	C	326	55.376	18.418	146.637	1.00	28.32
ATOM	3419	CD2	LEU	C	326	56.132	17.727	148.891	1.00	31.14
ATOM	3420	C	LEU	C	326	55.396	21.796	148.403	1.00	37.92
ATOM	3421	O	LEU	C	326	55.751	22.088	149.544	1.00	36.88
ATOM	3422	N	HIS	C	327	54.148	21.917	147.969	1.00	39.27
ATOM	3423	CA	HIS	C	327	53.085	22.430	148.820	1.00	41.32
ATOM	3424	CB	HIS	C	327	52.188	23.363	148.021	1.00	41.71
ATOM	3425	CG	HIS	C	327	52.802	24.693	147.740	1.00	43.39
ATOM	3426	CD2	HIS	C	327	53.144	25.288	146.573	1.00	43.33
ATOM	3427	ND1	HIS	C	327	53.132	25.582	148.740	1.00	42.70
ATOM	3428	CE1	HIS	C	327	53.653	26.669	148.200	1.00	43.09
ATOM	3429	NE2	HIS	C	327	53.673	26.517	146.888	1.00	43.55
ATOM	3430	C	HIS	C	327	52.207	21.363	149.452	1.00	42.33
ATOM	3431	O	HIS	C	327	51.644	20.517	148.761	1.00	42.42
ATOM	3432	N	LEU	C	328	52.083	21.412	150.769	1.00	43.08
ATOM	3433	CA	LEU	C	328	51.236	20.473	151.471	1.00	45.11
ATOM	3434	CB	LEU	C	328	52.029	19.708	152.528	1.00	42.60
ATOM	3435	CG	LEU	C	328	53.090	18.732	152.010	1.00	42.77
ATOM	3436	CD1	LEU	C	328	53.743	18.001	153.175	1.00	42.02
ATOM	3437	CD2	LEU	C	328	52.450	17.730	151.064	1.00	41.50
ATOM	3438	C	LEU	C	328	50.160	21.315	152.127	1.00	48.64
ATOM	3439	O	LEU	C	328	50.415	21.977	153.134	1.00	49.49
ATOM	3440	N	ARG	C	329	48.963	21.302	151.540	1.00	51.46
ATOM	3441	CA	ARG	C	329	47.839	22.076	152.056	1.00	53.13
ATOM	3442	CB	ARG	C	329	46.903	22.470	150.913	1.00	53.63
ATOM	3443	C	ARG	C	329	47.057	21.332	153.132	1.00	54.77
ATOM	3444	O	ARG	C	329	46.577	20.220	152.916	1.00	55.60
ATOM	3445	N	ASN	C	330	46.942	21.963	154.296	1.00	56.97
ATOM	3446	CA	ASN	C	330	46.218	21.399	155.429	1.00	59.20
ATOM	3447	CB	ASN	C	330	44.717	21.477	155.161	1.00	60.58
ATOM	3448	CG	ASN	C	330	43.897	21.255	156.407	1.00	62.83
ATOM	3449	OD1	ASN	C	330	44.112	20.292	157.148	1.00	63.10
ATOM	3450	ND2	ASN	C	330	42.940	22.146	156.646	1.00	64.41
ATOM	3451	C	ASN	C	330	46.636	19.948	155.658	1.00	59.55
ATOM	3452	O	ASN	C	330	46.059	19.029	155.085	1.00	60.48
ATOM	3453	N	VAL	C	331	47.636	19.747	156.504	1.00	60.31
ATOM	3454	CA	VAL	C	331	48.146	18.409	156.771	1.00	60.52
ATOM	3455	CB	VAL	C	331	49.606	18.486	157.308	1.00	59.96
ATOM	3456	CG1	VAL	C	331	50.527	19.031	156.223	1.00	58.15
ATOM	3457	CG2	VAL	C	331	49.672	19.380	158.535	1.00	58.53
ATOM	3458	C	VAL	C	331	47.288	17.590	157.732	1.00	60.66
ATOM	3459	O	VAL	C	331	46.274	18.061	158.239	1.00	60.55
ATOM	3460	N	SER	C	332	47.709	16.354	157.960	1.00	61.41
ATOM	3461	CA	SER	C	332	47.022	15.436	158.852	1.00	62.88
ATOM	3462	CB	SER	C	332	45.915	14.709	158.101	1.00	64.75
ATOM	3463	OG	SER	C	332	46.449	14.058	156.962	1.00	66.80
ATOM	3464	C	SER	C	332	48.066	14.440	159.312	1.00	62.96

Table 1

ATOM	3465	O	SER	C	332	49.115	14.323	158.692	1.00	63.04
ATOM	3466	N	PHE	C	333	47.790	13.724	160.394	1.00	64.54
ATOM	3467	CA	PHE	C	333	48.748	12.747	160.900	1.00	65.91
ATOM	3468	CB	PHE	C	333	48.126	11.899	162.011	1.00	68.96
ATOM	3469	CG	PHE	C	333	48.270	12.489	163.390	1.00	72.38
ATOM	3470	CD1	PHE	C	333	48.503	11.654	164.493	1.00	73.39
ATOM	3471	CD2	PHE	C	333	48.151	13.864	163.595	1.00	73.19
ATOM	3472	CE1	PHE	C	333	48.613	12.178	165.782	1.00	74.33
ATOM	3473	CE2	PHE	C	333	48.259	14.402	164.879	1.00	74.97
ATOM	3474	CZ	PHE	C	333	48.493	13.554	165.978	1.00	75.37
ATOM	3475	C	PHE	C	333	49.239	11.828	159.786	1.00	65.14
ATOM	3476	O	PHE	C	333	50.341	11.279	159.855	1.00	64.30
ATOM	3477	N	GLU	C	334	48.405	11.675	158.764	1.00	64.25
ATOM	3478	CA	GLU	C	334	48.708	10.831	157.615	1.00	63.39
ATOM	3479	CB	GLU	C	334	47.497	10.792	156.677	1.00	66.69
ATOM	3480	CG	GLU	C	334	46.149	11.068	157.374	1.00	70.10
ATOM	3481	CD	GLU	C	334	45.096	11.684	156.439	1.00	72.14
ATOM	3482	OE1	GLU	C	334	43.985	12.006	156.924	1.00	72.03
ATOM	3483	OE2	GLU	C	334	45.378	11.849	155.225	1.00	72.85
ATOM	3484	C	GLU	C	334	49.905	11.399	156.856	1.00	60.52
ATOM	3485	O	GLU	C	334	50.863	10.686	156.557	1.00	60.51
ATOM	3486	N	ASP	C	335	49.832	12.690	156.549	1.00	56.90
ATOM	3487	CA	ASP	C	335	50.882	13.388	155.811	1.00	53.14
ATOM	3488	CB	ASP	C	335	50.476	14.842	155.564	1.00	53.78
ATOM	3489	CG	ASP	C	335	49.223	14.968	154.723	1.00	54.03
ATOM	3490	OD1	ASP	C	335	49.229	14.518	153.555	1.00	53.72
ATOM	3491	OD2	ASP	C	335	48.231	15.530	155.235	1.00	55.24
ATOM	3492	C	ASP	C	335	52.261	13.376	156.476	1.00	50.25
ATOM	3493	O	ASP	C	335	53.261	13.720	155.846	1.00	49.76
ATOM	3494	N	ALA	C	336	52.327	13.006	157.748	1.00	45.93
ATOM	3495	CA	ALA	C	336	53.617	12.972	158.418	1.00	43.25
ATOM	3496	CB	ALA	C	336	53.462	12.516	159.863	1.00	44.14
ATOM	3497	C	ALA	C	336	54.498	12.002	157.656	1.00	41.41
ATOM	3498	O	ALA	C	336	54.009	11.154	156.921	1.00	41.75
ATOM	3499	N	GLY	C	337	55.803	12.120	157.825	1.00	39.43
ATOM	3500	CA	GLY	C	337	56.689	11.221	157.115	1.00	36.79
ATOM	3501	C	GLY	C	337	57.793	11.926	156.354	1.00	34.67
ATOM	3502	O	GLY	C	337	57.866	13.150	156.308	1.00	35.77
ATOM	3503	N	GLU	C	338	58.652	11.131	155.740	1.00	32.73
ATOM	3504	CA	GLU	C	338	59.788	11.632	154.982	1.00	30.27
ATOM	3505	CB	GLU	C	338	60.866	10.562	154.953	1.00	29.00
ATOM	3506	CG	GLU	C	338	62.067	10.917	154.143	1.00	30.51
ATOM	3507	CD	GLU	C	338	63.198	9.949	154.375	1.00	31.47
ATOM	3508	OE1	GLU	C	338	62.982	8.743	154.134	1.00	29.99
ATOM	3509	OE2	GLU	C	338	64.292	10.400	154.807	1.00	32.90
ATOM	3510	C	GLU	C	338	59.469	12.047	153.551	1.00	28.43
ATOM	3511	O	GLU	C	338	58.915	11.276	152.772	1.00	28.10
ATOM	3512	N	TYR	C	339	59.830	13.274	153.206	1.00	27.27
ATOM	3513	CA	TYR	C	339	59.613	13.768	151.857	1.00	25.56
ATOM	3514	CB	TYR	C	339	58.848	15.080	151.888	1.00	22.41
ATOM	3515	CG	TYR	C	339	57.407	14.869	152.267	1.00	20.77
ATOM	3516	CD1	TYR	C	339	57.039	14.638	153.594	1.00	19.97
ATOM	3517	CE1	TYR	C	339	55.719	14.387	153.937	1.00	19.82
ATOM	3518	CD2	TYR	C	339	56.416	14.844	151.294	1.00	18.89
ATOM	3519	CE2	TYR	C	339	55.104	14.593	151.623	1.00	19.97

Table 1

ATOM	3520	CZ	TYR	C	339	54.755	14.363	152.945	1.00	20.30
ATOM	3521	OH	TYR	C	339	53.435	14.097	153.260	1.00	23.03
ATOM	3522	C	TYR	C	339	60.978	13.940	151.219	1.00	25.76
ATOM	3523	O	TYR	C	339	61.920	14.404	151.863	1.00	25.02
ATOM	3524	N	THR	C	340	61.077	13.560	149.950	1.00	25.99
ATOM	3525	CA	THR	C	340	62.345	13.606	149.241	1.00	26.36
ATOM	3526	CB	THR	C	340	62.814	12.168	148.890	1.00	24.39
ATOM	3527	OG1	THR	C	340	63.094	11.447	150.095	1.00	23.87
ATOM	3528	CG2	THR	C	340	64.059	12.204	148.046	1.00	24.52
ATOM	3529	C	THR	C	340	62.325	14.409	147.957	1.00	27.11
ATOM	3530	O	THR	C	340	61.365	14.350	147.189	1.00	27.36
ATOM	3531	N	CYS	C	341	63.403	15.152	147.731	1.00	26.79
ATOM	3532	CA	CYS	C	341	63.548	15.940	146.521	1.00	27.05
ATOM	3533	C	CYS	C	341	64.636	15.325	145.654	1.00	28.59
ATOM	3534	O	CYS	C	341	65.806	15.303	146.046	1.00	29.17
ATOM	3535	CB	CYS	C	341	63.946	17.365	146.853	1.00	25.54
ATOM	3536	SG	CYS	C	341	64.337	18.352	145.373	1.00	25.46
ATOM	3537	N	LEU	C	342	64.251	14.834	144.479	1.00	28.86
ATOM	3538	CA	LEU	C	342	65.187	14.216	143.538	1.00	29.91
ATOM	3539	CB	LEU	C	342	64.633	12.917	142.982	1.00	33.91
ATOM	3540	CG	LEU	C	342	64.729	11.650	143.789	1.00	38.17
ATOM	3541	CD1	LEU	C	342	63.609	11.576	144.833	1.00	40.39
ATOM	3542	CD2	LEU	C	342	64.614	10.515	142.788	1.00	43.03
ATOM	3543	C	LEU	C	342	65.477	15.076	142.333	1.00	27.85
ATOM	3544	O	LEU	C	342	64.571	15.662	141.750	1.00	27.94
ATOM	3545	N	ALA	C	343	66.733	15.092	141.921	1.00	25.07
ATOM	3546	CA	ALA	C	343	67.132	15.866	140.763	1.00	23.93
ATOM	3547	CB	ALA	C	343	67.638	17.236	141.218	1.00	22.00
ATOM	3548	C	ALA	C	343	68.224	15.112	140.007	1.00	23.67
ATOM	3549	O	ALA	C	343	69.215	14.672	140.604	1.00	22.52
ATOM	3550	N	GLY	C	344	68.050	14.958	138.700	1.00	21.73
ATOM	3551	CA	GLY	C	344	69.064	14.259	137.949	1.00	22.16
ATOM	3552	C	GLY	C	344	69.211	14.686	136.509	1.00	23.40
ATOM	3553	O	GLY	C	344	68.280	15.217	135.901	1.00	24.16
ATOM	3554	N	ASN	C	345	70.405	14.481	135.966	1.00	22.89
ATOM	3555	CA	ASN	C	345	70.649	14.786	134.572	1.00	23.31
ATOM	3556	CB	ASN	C	345	71.592	15.980	134.382	1.00	22.34
ATOM	3557	CG	ASN	C	345	72.844	15.920	135.254	1.00	21.82
ATOM	3558	OD1	ASN	C	345	73.463	14.860	135.432	1.00	18.42
ATOM	3559	ND2	ASN	C	345	73.243	17.090	135.776	1.00	13.77
ATOM	3560	C	ASN	C	345	71.251	13.538	133.996	1.00	26.08
ATOM	3561	O	ASN	C	345	71.276	12.506	134.669	1.00	26.21
ATOM	3562	N	SER	C	346	71.729	13.608	132.760	1.00	29.18
ATOM	3563	CA	SER	C	346	72.317	12.428	132.130	1.00	32.72
ATOM	3564	CB	SER	C	346	72.628	12.718	130.670	1.00	32.48
ATOM	3565	OG	SER	C	346	73.540	13.802	130.580	1.00	39.08
ATOM	3566	C	SER	C	346	73.598	11.990	132.846	1.00	33.36
ATOM	3567	O	SER	C	346	73.995	10.818	132.777	1.00	33.41
ATOM	3568	N	ILE	C	347	74.236	12.928	133.543	1.00	32.93
ATOM	3569	CA	ILE	C	347	75.474	12.619	134.246	1.00	32.67
ATOM	3570	CB	ILE	C	347	76.216	13.890	134.647	1.00	32.54
ATOM	3571	CG2	ILE	C	347	77.521	13.533	135.317	1.00	30.57
ATOM	3572	CG1	ILE	C	347	76.495	14.738	133.414	1.00	30.88
ATOM	3573	CD1	ILE	C	347	77.034	16.100	133.747	1.00	30.35
ATOM	3574	C	ILE	C	347	75.252	11.790	135.499	1.00	33.46

Table 1

ATOM	3575	O	ILE	C	347	75.934	10.788	135.716	1.00	34.67
ATOM	3576	N	GLY	C	348	74.309	12.207	136.334	1.00	34.14
ATOM	3577	CA	GLY	C	348	74.046	11.458	137.549	1.00	33.61
ATOM	3578	C	GLY	C	348	72.761	11.867	138.239	1.00	34.30
ATOM	3579	O	GLY	C	348	71.953	12.617	137.678	1.00	35.47
ATOM	3580	N	LEU	C	349	72.592	11.389	139.471	1.00	33.67
ATOM	3581	CA	LEU	C	349	71.409	11.672	140.269	1.00	31.92
ATOM	3582	CB	LEU	C	349	70.572	10.399	140.360	1.00	34.71
ATOM	3583	CG	LEU	C	349	69.175	10.536	140.962	1.00	38.25
ATOM	3584	CD1	LEU	C	349	68.296	11.357	140.007	1.00	39.99
ATOM	3585	CD2	LEU	C	349	68.586	9.156	141.191	1.00	37.78
ATOM	3586	C	LEU	C	349	71.721	12.182	141.687	1.00	30.62
ATOM	3587	O	LEU	C	349	72.719	11.795	142.298	1.00	29.04
ATOM	3588	N	SER	C	350	70.856	13.051	142.207	1.00	28.72
ATOM	3589	CA	SER	C	350	71.022	13.587	143.551	1.00	27.43
ATOM	3590	CB	SER	C	350	71.590	15.001	143.515	1.00	26.34
ATOM	3591	OG	SER	C	350	72.889	15.011	142.967	1.00	26.24
ATOM	3592	C	SER	C	350	69.667	13.636	144.204	1.00	28.04
ATOM	3593	O	SER	C	350	68.654	13.578	143.515	1.00	29.41
ATOM	3594	N	HIS	C	351	69.643	13.742	145.529	1.00	28.26
ATOM	3595	CA	HIS	C	351	68.386	13.832	146.258	1.00	28.95
ATOM	3596	CB	HIS	C	351	67.598	12.518	146.162	1.00	30.19
ATOM	3597	CG	HIS	C	351	68.160	11.405	146.995	1.00	33.01
ATOM	3598	CD2	HIS	C	351	67.678	10.794	148.107	1.00	33.21
ATOM	3599	ND1	HIS	C	351	69.373	10.805	146.725	1.00	31.59
ATOM	3600	CE1	HIS	C	351	69.615	9.876	147.632	1.00	31.13
ATOM	3601	NE2	HIS	C	351	68.602	9.849	148.481	1.00	33.01
ATOM	3602	C	HIS	C	351	68.632	14.167	147.716	1.00	29.78
ATOM	3603	O	HIS	C	351	69.599	13.698	148.302	1.00	31.58
ATOM	3604	N	HIS	C	352	67.764	15.001	148.284	1.00	29.61
ATOM	3605	CA	HIS	C	352	67.833	15.388	149.692	1.00	28.24
ATOM	3606	CB	HIS	C	352	68.020	16.900	149.845	1.00	26.76
ATOM	3607	CG	HIS	C	352	69.436	17.358	149.705	1.00	27.38
ATOM	3608	CD2	HIS	C	352	70.582	16.670	149.488	1.00	27.13
ATOM	3609	ND1	HIS	C	352	69.797	18.687	149.786	1.00	27.93
ATOM	3610	CE1	HIS	C	352	71.103	18.798	149.625	1.00	27.53
ATOM	3611	NE2	HIS	C	352	71.603	17.589	149.442	1.00	28.55
ATOM	3612	C	HIS	C	352	66.495	14.998	150.292	1.00	28.26
ATOM	3613	O	HIS	C	352	65.473	15.043	149.613	1.00	30.53
ATOM	3614	N	SER	C	353	66.479	14.605	151.552	1.00	28.24
ATOM	3615	CA	SER	C	353	65.214	14.244	152.157	1.00	29.01
ATOM	3616	CB	SER	C	353	65.188	12.761	152.490	1.00	26.29
ATOM	3617	OG	SER	C	353	65.387	12.004	151.310	1.00	26.32
ATOM	3618	C	SER	C	353	64.995	15.083	153.398	1.00	30.55
ATOM	3619	O	SER	C	353	65.937	15.663	153.932	1.00	33.17
ATOM	3620	N	ALA	C	354	63.742	15.188	153.824	1.00	31.52
ATOM	3621	CA	ALA	C	354	63.391	15.954	155.017	1.00	31.06
ATOM	3622	CB	ALA	C	354	62.994	17.374	154.657	1.00	30.66
ATOM	3623	C	ALA	C	354	62.240	15.247	155.702	1.00	31.47
ATOM	3624	O	ALA	C	354	61.521	14.447	155.082	1.00	29.46
ATOM	3625	N	TRP	C	355	62.069	15.523	156.988	1.00	32.19
ATOM	3626	CA	TRP	C	355	60.998	14.873	157.705	1.00	33.04
ATOM	3627	CB	TRP	C	355	61.538	14.043	158.856	1.00	36.34
ATOM	3628	CG	TRP	C	355	60.566	12.984	159.209	1.00	43.15
ATOM	3629	CD2	TRP	C	355	60.660	11.598	158.868	1.00	46.13

Table 1

ATOM	3630	CE2	TRP	C	355	59.454	10.978	159.295	1.00	47.17
ATOM	3631	CE3	TRP	C	355	61.646	10.818	158.240	1.00	47.31
ATOM	3632	CD1	TRP	C	355	59.343	13.148	159.821	1.00	44.54
ATOM	3633	NE1	TRP	C	355	58.672	11.946	159.872	1.00	46.02
ATOM	3634	CZ2	TRP	C	355	59.208	9.609	159.113	1.00	47.00
ATOM	3635	CZ3	TRP	C	355	61.403	9.456	158.060	1.00	48.50
ATOM	3636	CH2	TRP	C	355	60.189	8.866	158.496	1.00	48.25
ATOM	3637	C	TRP	C	355	59.919	15.802	158.214	1.00	32.05
ATOM	3638	O	TRP	C	355	60.198	16.828	158.835	1.00	30.83
ATOM	3639	N	LEU	C	356	58.678	15.420	157.933	1.00	31.07
ATOM	3640	CA	LEU	C	356	57.524	16.183	158.352	1.00	30.97
ATOM	3641	CB	LEU	C	356	56.477	16.209	157.234	1.00	30.59
ATOM	3642	CG	LEU	C	356	55.497	17.398	157.177	1.00	30.85
ATOM	3643	CD1	LEU	C	356	54.086	16.904	157.372	1.00	28.31
ATOM	3644	CD2	LEU	C	356	55.863	18.464	158.228	1.00	29.07
ATOM	3645	C	LEU	C	356	56.946	15.542	159.599	1.00	31.35
ATOM	3646	O	LEU	C	356	56.465	14.413	159.556	1.00	32.90
ATOM	3647	N	THR	C	357	57.024	16.263	160.712	1.00	32.76
ATOM	3648	CA	THR	C	357	56.493	15.808	162.001	1.00	33.59
ATOM	3649	CB	THR	C	357	57.483	16.103	163.156	1.00	31.42
ATOM	3650	OG1	THR	C	357	58.639	15.274	163.031	1.00	30.47
ATOM	3651	CG2	THR	C	357	56.825	15.868	164.498	1.00	29.75
ATOM	3652	C	THR	C	357	55.199	16.580	162.280	1.00	35.63
ATOM	3653	O	THR	C	357	55.219	17.811	162.359	1.00	36.00
ATOM	3654	N	VAL	C	358	54.077	15.876	162.414	1.00	38.93
ATOM	3655	CA	VAL	C	358	52.801	16.548	162.697	1.00	41.15
ATOM	3656	CB	VAL	C	358	51.677	16.122	161.714	1.00	41.26
ATOM	3657	CG1	VAL	C	358	50.328	16.600	162.225	1.00	41.80
ATOM	3658	CG2	VAL	C	358	51.917	16.742	160.352	1.00	41.94
ATOM	3659	C	VAL	C	358	52.313	16.314	164.126	1.00	41.85
ATOM	3660	O	VAL	C	358	52.489	15.227	164.688	1.00	43.32
ATOM	3661	N	LEU	C	359	51.715	17.347	164.715	1.00	41.83
ATOM	3662	CA	LEU	C	359	51.192	17.256	166.074	1.00	41.63
ATOM	3663	CB	LEU	C	359	52.240	17.766	167.075	1.00	41.22
ATOM	3664	CG	LEU	C	359	53.580	17.017	167.141	1.00	41.29
ATOM	3665	CD1	LEU	C	359	54.507	17.658	168.177	1.00	37.31
ATOM	3666	CD2	LEU	C	359	53.319	15.552	167.480	1.00	41.10
ATOM	3667	C	LEU	C	359	49.889	18.051	166.202	1.00	40.98
ATOM	3668	O	LEU	C	359	49.037	17.618	167.011	1.00	42.00
ATOM	3669	CB	MET	D	149	110.758	21.323	85.925	1.00	69.15
ATOM	3670	CG	MET	D	149	112.000	21.050	86.762	1.00	74.74
ATOM	3671	SD	MET	D	149	113.256	20.101	85.852	1.00	81.81
ATOM	3672	CE	MET	D	149	114.238	21.463	85.114	1.00	78.77
ATOM	3673	C	MET	D	149	109.620	19.185	86.605	1.00	62.44
ATOM	3674	O	MET	D	149	109.529	19.656	87.741	1.00	62.89
ATOM	3675	N	MET	D	149	108.883	20.439	84.573	1.00	63.06
ATOM	3676	CA	MET	D	149	110.054	20.057	85.419	1.00	64.74
ATOM	3677	N	PRO	D	150	109.353	17.894	86.353	1.00	59.72
ATOM	3678	CD	PRO	D	150	109.422	17.240	85.034	1.00	59.01
ATOM	3679	CA	PRO	D	150	108.924	16.941	87.384	1.00	57.62
ATOM	3680	CB	PRO	D	150	109.001	15.600	86.662	1.00	57.11
ATOM	3681	CG	PRO	D	150	108.634	15.970	85.264	1.00	57.93
ATOM	3682	C	PRO	D	150	109.754	16.957	88.670	1.00	55.83
ATOM	3683	O	PRO	D	150	110.977	16.787	88.631	1.00	54.45
ATOM	3684	N	VAL	D	151	109.079	17.171	89.803	1.00	54.22

Table 1

ATOM	3685	CA	VAL	D	151	109.734	17.182	91.120	1.00	51.14
ATOM	3686	CB	VAL	D	151	109.991	18.614	91.675	1.00	49.72
ATOM	3687	CG1	VAL	D	151	110.768	18.530	92.980	1.00	47.94
ATOM	3688	CG2	VAL	D	151	110.778	19.431	90.685	1.00	51.03
ATOM	3689	C	VAL	D	151	108.879	16.454	92.144	1.00	49.31
ATOM	3690	O	VAL	D	151	107.679	16.711	92.263	1.00	49.40
ATOM	3691	N	ALA	D	152	109.507	15.539	92.874	1.00	47.24
ATOM	3692	CA	ALA	D	152	108.819	14.787	93.911	1.00	45.53
ATOM	3693	CB	ALA	D	152	109.658	13.586	94.330	1.00	46.23
ATOM	3694	C	ALA	D	152	108.599	15.726	95.100	1.00	44.08
ATOM	3695	O	ALA	D	152	109.352	16.683	95.303	1.00	43.55
ATOM	3696	N	PRO	D	153	107.565	15.463	95.904	1.00	42.50
ATOM	3697	CD	PRO	D	153	106.685	14.282	95.917	1.00	42.56
ATOM	3698	CA	PRO	D	153	107.308	16.332	97.053	1.00	41.65
ATOM	3699	CB	PRO	D	153	106.100	15.670	97.721	1.00	42.90
ATOM	3700	CG	PRO	D	153	106.266	14.218	97.360	1.00	44.02
ATOM	3701	C	PRO	D	153	108.499	16.481	98.001	1.00	40.45
ATOM	3702	O	PRO	D	153	109.251	15.530	98.237	1.00	39.50
ATOM	3703	N	TYR	D	154	108.668	17.685	98.535	1.00	38.89
ATOM	3704	CA	TYR	D	154	109.754	17.955	99.470	1.00	37.97
ATOM	3705	CB	TYR	D	154	110.957	18.508	98.727	1.00	36.16
ATOM	3706	CG	TYR	D	154	110.743	19.903	98.186	1.00	34.50
ATOM	3707	CD1	TYR	D	154	110.255	20.109	96.900	1.00	34.15
ATOM	3708	CE1	TYR	D	154	110.089	21.393	96.395	1.00	33.84
ATOM	3709	CD2	TYR	D	154	111.050	21.019	98.959	1.00	34.16
ATOM	3710	CE2	TYR	D	154	110.885	22.303	98.464	1.00	34.12
ATOM	3711	CZ	TYR	D	154	110.409	22.481	97.183	1.00	33.84
ATOM	3712	OH	TYR	D	154	110.276	23.751	96.689	1.00	35.14
ATOM	3713	C	TYR	D	154	109.298	18.972	100.524	1.00	38.33
ATOM	3714	O	TYR	D	154	108.449	19.830	100.243	1.00	39.41
ATOM	3715	N	TRP	D	155	109.863	18.892	101.727	1.00	36.71
ATOM	3716	CA	TRP	D	155	109.455	19.823	102.771	1.00	37.08
ATOM	3717	CB	TRP	D	155	109.894	19.355	104.170	1.00	35.10
ATOM	3718	CG	TRP	D	155	109.428	17.970	104.597	1.00	32.90
ATOM	3719	CD2	TRP	D	155	108.072	17.482	104.711	1.00	33.50
ATOM	3720	CE2	TRP	D	155	108.147	16.139	105.165	1.00	31.19
ATOM	3721	CE3	TRP	D	155	106.809	18.045	104.473	1.00	35.19
ATOM	3722	CD1	TRP	D	155	110.226	16.936	104.974	1.00	32.49
ATOM	3723	NE1	TRP	D	155	109.467	15.835	105.316	1.00	32.97
ATOM	3724	CZ2	TRP	D	155	107.014	15.352	105.386	1.00	31.24
ATOM	3725	CZ3	TRP	D	155	105.668	17.253	104.696	1.00	33.46
ATOM	3726	CH2	TRP	D	155	105.786	15.922	105.148	1.00	32.78
ATOM	3727	C	TRP	D	155	110.029	21.202	102.482	1.00	38.20
ATOM	3728	O	TRP	D	155	111.219	21.350	102.196	1.00	38.53
ATOM	3729	N	THR	D	156	109.161	22.202	102.554	1.00	38.98
ATOM	3730	CA	THR	D	156	109.531	23.577	102.303	1.00	40.31
ATOM	3731	CB	THR	D	156	108.352	24.311	101.685	1.00	40.82
ATOM	3732	OG1	THR	D	156	107.322	24.493	102.665	1.00	40.84
ATOM	3733	CG2	THR	D	156	107.797	23.490	100.548	1.00	40.35
ATOM	3734	C	THR	D	156	109.948	24.276	103.593	1.00	42.90
ATOM	3735	O	THR	D	156	110.677	25.269	103.560	1.00	43.06
ATOM	3736	N	SER	D	157	109.495	23.753	104.730	1.00	45.45
ATOM	3737	CA	SER	D	157	109.833	24.357	106.019	1.00	46.78
ATOM	3738	CB	SER	D	157	108.702	25.283	106.472	1.00	45.14
ATOM	3739	OG	SER	D	157	108.311	26.138	105.413	1.00	44.01

Table 1

ATOM	3740	C	SER	D	157	110.111	23.305	107.091	1.00	47.76
ATOM	3741	O	SER	D	157	109.389	23.205	108.083	1.00	49.26
ATOM	3742	N	PRO	D	158	111.175	22.510	106.905	1.00	48.01
ATOM	3743	CD	PRO	D	158	112.209	22.622	105.862	1.00	47.15
ATOM	3744	CA	PRO	D	158	111.529	21.470	107.873	1.00	48.12
ATOM	3745	CB	PRO	D	158	112.760	20.830	107.245	1.00	47.44
ATOM	3746	CG	PRO	D	158	113.392	21.978	106.534	1.00	47.27
ATOM	3747	C	PRO	D	158	111.810	22.047	109.259	1.00	48.98
ATOM	3748	O	PRO	D	158	111.803	21.324	110.257	1.00	49.86
ATOM	3749	N	GLU	D	159	112.060	23.351	109.313	1.00	49.77
ATOM	3750	CA	GLU	D	159	112.339	24.023	110.577	1.00	50.29
ATOM	3751	CB	GLU	D	159	112.846	25.442	110.313	1.00	51.25
ATOM	3752	C	GLU	D	159	111.081	24.060	111.448	1.00	50.73
ATOM	3753	O	GLU	D	159	111.168	24.038	112.674	1.00	52.21
ATOM	3754	N	LYS	D	160	109.916	24.095	110.803	1.00	50.21
ATOM	3755	CA	LYS	D	160	108.624	24.127	111.493	1.00	48.11
ATOM	3756	CB	LYS	D	160	107.612	24.890	110.625	1.00	47.76
ATOM	3757	C	LYS	D	160	108.088	22.714	111.803	1.00	46.25
ATOM	3758	O	LYS	D	160	106.895	22.534	112.065	1.00	45.85
ATOM	3759	N	MET	D	161	108.973	21.721	111.793	1.00	44.07
ATOM	3760	CA	MET	D	161	108.570	20.337	112.033	1.00	41.94
ATOM	3761	CB	MET	D	161	108.721	19.531	110.743	1.00	41.09
ATOM	3762	CG	MET	D	161	108.422	20.324	109.491	1.00	40.86
ATOM	3763	SD	MET	D	161	108.201	19.267	108.062	1.00	41.70
ATOM	3764	CE	MET	D	161	106.479	18.779	108.274	1.00	40.72
ATOM	3765	C	MET	D	161	109.376	19.656	113.128	1.00	40.13
ATOM	3766	O	MET	D	161	109.080	18.532	113.514	1.00	39.25
ATOM	3767	N	GLU	D	162	110.394	20.339	113.624	1.00	39.93
ATOM	3768	CA	GLU	D	162	111.249	19.777	114.656	1.00	39.97
ATOM	3769	CB	GLU	D	162	112.330	20.803	115.035	1.00	41.29
ATOM	3770	C	GLU	D	162	110.504	19.276	115.912	1.00	39.38
ATOM	3771	O	GLU	D	162	110.942	18.317	116.555	1.00	39.93
ATOM	3772	N	LYS	D	163	109.387	19.912	116.256	1.00	37.75
ATOM	3773	CA	LYS	D	163	108.601	19.519	117.430	1.00	37.57
ATOM	3774	CB	LYS	D	163	107.739	20.699	117.879	1.00	38.91
ATOM	3775	CG	LYS	D	163	106.685	20.375	118.924	1.00	39.14
ATOM	3776	CD	LYS	D	163	105.919	21.641	119.271	1.00	42.01
ATOM	3777	CE	LYS	D	163	104.685	21.381	120.110	1.00	42.34
ATOM	3778	NZ	LYS	D	163	103.984	22.666	120.386	1.00	43.85
ATOM	3779	C	LYS	D	163	107.699	18.325	117.135	1.00	36.24
ATOM	3780	O	LYS	D	163	106.522	18.499	116.832	1.00	36.01
ATOM	3781	N	LYS	D	164	108.248	17.118	117.231	1.00	35.31
ATOM	3782	CA	LYS	D	164	107.482	15.908	116.949	1.00	34.73
ATOM	3783	CB	LYS	D	164	108.429	14.703	116.845	1.00	33.14
ATOM	3784	C	LYS	D	164	106.363	15.627	117.971	1.00	34.05
ATOM	3785	O	LYS	D	164	105.279	15.178	117.597	1.00	33.86
ATOM	3786	N	LEU	D	165	106.616	15.901	119.251	1.00	33.62
ATOM	3787	CA	LEU	D	165	105.614	15.668	120.299	1.00	32.88
ATOM	3788	CB	LEU	D	165	106.266	15.047	121.539	1.00	30.62
ATOM	3789	CG	LEU	D	165	105.369	14.968	122.780	1.00	29.12
ATOM	3790	CD1	LEU	D	165	104.041	14.358	122.395	1.00	30.41
ATOM	3791	CD2	LEU	D	165	106.033	14.148	123.875	1.00	28.30
ATOM	3792	C	LEU	D	165	104.825	16.900	120.749	1.00	32.89
ATOM	3793	O	LEU	D	165	105.403	17.880	121.214	1.00	31.55
ATOM	3794	N	HIS	D	166	103.502	16.839	120.623	1.00	34.11

Table 1

ATOM	3795	CA	HIS	D	166	102.642	17.944	121.062	1.00	35.36
ATOM	3796	CB	HIS	D	166	101.697	18.406	119.938	1.00	36.03
ATOM	3797	CG	HIS	D	166	102.383	19.122	118.815	1.00	38.56
ATOM	3798	CD2	HIS	D	166	102.166	20.346	118.275	1.00	39.15
ATOM	3799	ND1	HIS	D	166	103.415	18.563	118.090	1.00	40.14
ATOM	3800	CE1	HIS	D	166	103.805	19.411	117.153	1.00	40.03
ATOM	3801	NE2	HIS	D	166	103.063	20.500	117.243	1.00	39.63
ATOM	3802	C	HIS	D	166	101.815	17.512	122.278	1.00	34.38
ATOM	3803	O	HIS	D	166	100.854	16.751	122.151	1.00	33.62
ATOM	3804	N	ALA	D	167	102.216	17.987	123.453	1.00	34.17
ATOM	3805	CA	ALA	D	167	101.512	17.683	124.693	1.00	34.33
ATOM	3806	CB	ALA	D	167	102.494	17.263	125.773	1.00	34.70
ATOM	3807	C	ALA	D	167	100.773	18.953	125.102	1.00	34.92
ATOM	3808	O	ALA	D	167	101.349	20.053	125.139	1.00	34.52
ATOM	3809	N	VAL	D	168	99.490	18.807	125.404	1.00	34.73
ATOM	3810	CA	VAL	D	168	98.687	19.961	125.772	1.00	35.77
ATOM	3811	CB	VAL	D	168	98.071	20.638	124.516	1.00	37.28
ATOM	3812	CG1	VAL	D	168	99.167	21.236	123.661	1.00	39.06
ATOM	3813	CG2	VAL	D	168	97.266	19.618	123.708	1.00	35.97
ATOM	3814	C	VAL	D	168	97.542	19.679	126.734	1.00	35.05
ATOM	3815	O	VAL	D	168	97.092	18.541	126.890	1.00	34.17
ATOM	3816	N	PRO	D	169	97.055	20.733	127.401	1.00	35.28
ATOM	3817	CD	PRO	D	169	97.554	22.122	127.403	1.00	36.03
ATOM	3818	CA	PRO	D	169	95.949	20.572	128.340	1.00	35.43
ATOM	3819	CB	PRO	D	169	96.026	21.851	129.173	1.00	35.77
ATOM	3820	CG	PRO	D	169	96.490	22.857	128.188	1.00	35.98
ATOM	3821	C	PRO	D	169	94.661	20.467	127.525	1.00	34.49
ATOM	3822	O	PRO	D	169	94.466	21.221	126.569	1.00	34.25
ATOM	3823	N	ALA	D	170	93.796	19.523	127.886	1.00	34.06
ATOM	3824	CA	ALA	D	170	92.532	19.332	127.174	1.00	33.00
ATOM	3825	CB	ALA	D	170	91.619	18.416	127.956	1.00	33.00
ATOM	3826	C	ALA	D	170	91.824	20.651	126.924	1.00	32.26
ATOM	3827	O	ALA	D	170	91.941	21.578	127.719	1.00	32.40
ATOM	3828	N	ALA	D	171	91.093	20.713	125.813	1.00	32.29
ATOM	3829	CA	ALA	D	171	90.327	21.892	125.398	1.00	32.27
ATOM	3830	CB	ALA	D	171	89.828	22.679	126.609	1.00	31.55
ATOM	3831	C	ALA	D	171	91.112	22.819	124.491	1.00	31.96
ATOM	3832	O	ALA	D	171	90.562	23.778	123.948	1.00	29.70
ATOM	3833	N	LYS	D	172	92.402	22.546	124.333	1.00	32.67
ATOM	3834	CA	LYS	D	172	93.217	23.384	123.473	1.00	33.52
ATOM	3835	CB	LYS	D	172	94.694	23.261	123.863	1.00	33.51
ATOM	3836	CG	LYS	D	172	95.611	24.093	122.988	1.00	34.75
ATOM	3837	CD	LYS	D	172	97.001	24.243	123.565	1.00	36.61
ATOM	3838	CE	LYS	D	172	97.944	24.853	122.526	1.00	37.04
ATOM	3839	NZ	LYS	D	172	97.361	26.069	121.884	1.00	37.00
ATOM	3840	C	LYS	D	172	93.019	23.029	121.987	1.00	34.04
ATOM	3841	O	LYS	D	172	92.652	21.896	121.647	1.00	33.27
ATOM	3842	N	THR	D	173	93.232	24.013	121.112	1.00	33.22
ATOM	3843	CA	THR	D	173	93.115	23.804	119.670	1.00	33.34
ATOM	3844	CB	THR	D	173	92.676	25.100	118.920	1.00	34.73
ATOM	3845	OG1	THR	D	173	91.293	25.359	119.174	1.00	35.71
ATOM	3846	CG2	THR	D	173	92.857	24.947	117.418	1.00	35.47
ATOM	3847	C	THR	D	173	94.484	23.379	119.161	1.00	32.51
ATOM	3848	O	THR	D	173	95.475	24.052	119.425	1.00	32.58
ATOM	3849	N	VAL	D	174	94.545	22.256	118.451	1.00	31.86

Table 1

ATOM	3850	CA	VAL	D	174	95.814	21.779	117.920	1.00	31.60
ATOM	3851	CB	VAL	D	174	96.099	20.349	118.361	1.00	31.01
ATOM	3852	CG1	VAL	D	174	97.430	19.890	117.769	1.00	32.36
ATOM	3853	CG2	VAL	D	174	96.134	20.279	119.872	1.00	28.05
ATOM	3854	C	VAL	D	174	95.879	21.855	116.395	1.00	33.26
ATOM	3855	O	VAL	D	174	94.892	21.594	115.704	1.00	33.35
ATOM	3856	N	LYS	D	175	97.045	22.236	115.877	1.00	34.14
ATOM	3857	CA	LYS	D	175	97.235	22.345	114.433	1.00	34.10
ATOM	3858	CB	LYS	D	175	97.168	23.809	113.983	1.00	34.48
ATOM	3859	C	LYS	D	175	98.577	21.748	114.052	1.00	34.13
ATOM	3860	O	LYS	D	175	99.607	22.109	114.614	1.00	34.08
ATOM	3861	N	PHE	D	176	98.551	20.816	113.107	1.00	34.81
ATOM	3862	CA	PHE	D	176	99.764	20.157	112.639	1.00	36.16
ATOM	3863	CB	PHE	D	176	99.610	18.637	112.667	1.00	38.54
ATOM	3864	CG	PHE	D	176	99.406	18.067	114.038	1.00	42.17
ATOM	3865	CD1	PHE	D	176	100.194	18.485	115.107	1.00	42.78
ATOM	3866	CD2	PHE	D	176	98.451	17.074	114.256	1.00	42.56
ATOM	3867	CE1	PHE	D	176	100.039	17.922	116.374	1.00	42.13
ATOM	3868	CE2	PHE	D	176	98.290	16.506	115.519	1.00	42.31
ATOM	3869	CZ	PHE	D	176	99.087	16.932	116.577	1.00	42.63
ATOM	3870	C	PHE	D	176	100.070	20.590	111.214	1.00	36.23
ATOM	3871	O	PHE	D	176	99.227	20.441	110.322	1.00	34.78
ATOM	3872	N	LYS	D	177	101.283	21.101	111.005	1.00	35.54
ATOM	3873	CA	LYS	D	177	101.694	21.570	109.690	1.00	36.04
ATOM	3874	CB	LYS	D	177	102.157	23.032	109.801	1.00	34.13
ATOM	3875	C	LYS	D	177	102.784	20.706	109.033	1.00	36.18
ATOM	3876	O	LYS	D	177	103.714	20.248	109.698	1.00	35.87
ATOM	3877	N	CYS	D	178	102.637	20.474	107.728	1.00	37.01
ATOM	3878	CA	CYS	D	178	103.598	19.701	106.936	1.00	37.64
ATOM	3879	C	CYS	D	178	103.911	20.467	105.655	1.00	38.59
ATOM	3880	O	CYS	D	178	103.697	19.966	104.550	1.00	38.68
ATOM	3881	CB	CYS	D	178	103.031	18.330	106.578	1.00	36.26
ATOM	3882	SG	CYS	D	178	102.974	17.203	107.996	1.00	36.60
ATOM	3883	N	PRO	D	179	104.416	21.707	105.787	1.00	39.52
ATOM	3884	CD	PRO	D	179	104.675	22.481	107.015	1.00	39.06
ATOM	3885	CA	PRO	D	179	104.740	22.511	104.611	1.00	39.90
ATOM	3886	CB	PRO	D	179	105.401	23.747	105.217	1.00	38.21
ATOM	3887	CG	PRO	D	179	104.680	23.900	106.495	1.00	36.04
ATOM	3888	C	PRO	D	179	105.654	21.766	103.649	1.00	41.32
ATOM	3889	O	PRO	D	179	106.807	21.439	103.977	1.00	40.88
ATOM	3890	N	SER	D	180	105.119	21.485	102.466	1.00	42.71
ATOM	3891	CA	SER	D	180	105.875	20.790	101.437	1.00	44.82
ATOM	3892	CB	SER	D	180	105.529	19.292	101.413	1.00	45.46
ATOM	3893	OG	SER	D	180	104.130	19.082	101.432	1.00	48.11
ATOM	3894	C	SER	D	180	105.608	21.424	100.083	1.00	45.11
ATOM	3895	O	SER	D	180	104.881	22.425	99.988	1.00	45.08
ATOM	3896	N	SER	D	181	106.216	20.852	99.046	1.00	44.67
ATOM	3897	CA	SER	D	181	106.062	21.360	97.691	1.00	44.09
ATOM	3898	CB	SER	D	181	106.911	22.620	97.508	1.00	42.85
ATOM	3899	OG	SER	D	181	106.811	23.124	96.189	1.00	41.34
ATOM	3900	C	SER	D	181	106.499	20.317	96.680	1.00	44.51
ATOM	3901	O	SER	D	181	107.084	19.299	97.040	1.00	44.21
ATOM	3902	N	GLY	D	182	106.216	20.591	95.411	1.00	45.65
ATOM	3903	CA	GLY	D	182	106.592	19.692	94.336	1.00	45.68
ATOM	3904	C	GLY	D	182	105.741	19.934	93.103	1.00	46.72

Table I

ATOM	3905	O	GLY	D	182	104.697	20.588	93.180	1.00	47.72
ATOM	3906	N	THR	D	183	106.184	19.421	91.960	1.00	46.52
ATOM	3907	CA	THR	D	183	105.424	19.577	90.724	1.00	45.61
ATOM	3908	CB	THR	D	183	106.044	20.652	89.807	1.00	45.40
ATOM	3909	OG1	THR	D	183	107.457	20.453	89.725	1.00	46.04
ATOM	3910	CG2	THR	D	183	105.766	22.049	90.358	1.00	44.85
ATOM	3911	C	THR	D	183	105.339	18.251	89.978	1.00	44.73
ATOM	3912	O	THR	D	183	106.350	17.597	89.730	1.00	44.87
ATOM	3913	N	PRO	D	184	104.116	17.818	89.642	1.00	44.69
ATOM	3914	CD	PRO	D	184	103.857	16.493	89.049	1.00	43.56
ATOM	3915	CA	PRO	D	184	102.854	18.510	89.930	1.00	44.95
ATOM	3916	CB	PRO	D	184	101.829	17.645	89.213	1.00	43.90
ATOM	3917	CG	PRO	D	184	102.400	16.271	89.384	1.00	43.92
ATOM	3918	C	PRO	D	184	102.559	18.636	91.431	1.00	46.12
ATOM	3919	O	PRO	D	184	103.002	17.806	92.242	1.00	45.37
ATOM	3920	N	GLN	D	185	101.804	19.677	91.785	1.00	48.01
ATOM	3921	CA	GLN	D	185	101.439	19.942	93.179	1.00	48.94
ATOM	3922	CB	GLN	D	185	100.386	21.050	93.269	1.00	50.69
ATOM	3923	CG	GLN	D	185	100.407	21.749	94.605	1.00	55.14
ATOM	3924	CD	GLN	D	185	101.796	22.271	94.959	1.00	58.21
ATOM	3925	OE1	GLN	D	185	102.026	22.757	96.067	1.00	61.45
ATOM	3926	NE2	GLN	D	185	102.727	22.177	94.014	1.00	58.46
ATOM	3927	C	GLN	D	185	100.927	18.677	93.851	1.00	47.51
ATOM	3928	O	GLN	D	185	99.975	18.049	93.374	1.00	48.35
ATOM	3929	N	PRO	D	186	101.558	18.283	94.970	1.00	44.84
ATOM	3930	CD	PRO	D	186	102.748	18.894	95.593	1.00	43.75
ATOM	3931	CA	PRO	D	186	101.150	17.072	95.686	1.00	42.59
ATOM	3932	CB	PRO	D	186	102.346	16.799	96.590	1.00	42.85
ATOM	3933	CG	PRO	D	186	102.830	18.176	96.915	1.00	43.55
ATOM	3934	C	PRO	D	186	99.835	17.148	96.460	1.00	41.51
ATOM	3935	O	PRO	D	186	99.275	18.221	96.670	1.00	40.81
ATOM	3936	N	THR	D	187	99.337	15.984	96.862	1.00	41.66
ATOM	3937	CA	THR	D	187	98.108	15.901	97.638	1.00	40.35
ATOM	3938	CB	THR	D	187	97.232	14.753	97.203	1.00	39.73
ATOM	3939	OG1	THR	D	187	98.044	13.590	97.003	1.00	40.03
ATOM	3940	CG2	THR	D	187	96.502	15.108	95.941	1.00	40.19
ATOM	3941	C	THR	D	187	98.468	15.671	99.092	1.00	41.68
ATOM	3942	O	THR	D	187	99.486	15.041	99.408	1.00	42.57
ATOM	3943	N	LEU	D	188	97.612	16.174	99.973	1.00	41.12
ATOM	3944	CA	LEU	D	188	97.833	16.066	101.401	1.00	39.93
ATOM	3945	CB	LEU	D	188	97.967	17.475	101.992	1.00	39.49
ATOM	3946	CG	LEU	D	188	98.640	17.685	103.352	1.00	38.54
ATOM	3947	CD1	LEU	D	188	97.695	18.466	104.252	1.00	36.15
ATOM	3948	CD2	LEU	D	188	99.031	16.351	103.972	1.00	37.43
ATOM	3949	C	LEU	D	188	96.690	15.317	102.076	1.00	39.41
ATOM	3950	O	LEU	D	188	95.525	15.693	101.944	1.00	39.82
ATOM	3951	N	ARG	D	189	97.033	14.254	102.795	1.00	38.29
ATOM	3952	CA	ARG	D	189	96.050	13.463	103.515	1.00	37.44
ATOM	3953	CB	ARG	D	189	95.760	12.168	102.751	1.00	37.63
ATOM	3954	CG	ARG	D	189	96.969	11.294	102.500	1.00	40.60
ATOM	3955	CD	ARG	D	189	96.551	9.935	101.942	1.00	41.74
ATOM	3956	NE	ARG	D	189	97.654	8.970	101.942	1.00	42.49
ATOM	3957	CZ	ARG	D	189	97.512	7.668	101.714	1.00	41.00
ATOM	3958	C	ARG	D	189	96.630	13.156	104.891	1.00	36.92
ATOM	3959	O	ARG	D	189	97.844	13.071	105.035	1.00	37.76

Table I

ATOM	3960	N	TRP	D	190	95.771	13.004	105.899	1.00	37.03
ATOM	3961	CA	TRP	D	190	96.218	12.715	107.260	1.00	35.13
ATOM	3962	CB	TRP	D	190	95.732	13.797	108.214	1.00	34.41
ATOM	3963	CG	TRP	D	190	96.297	15.173	107.933	1.00	35.57
ATOM	3964	CD2	TRP	D	190	97.500	15.735	108.479	1.00	35.94
ATOM	3965	CE2	TRP	D	190	97.604	17.060	107.984	1.00	34.87
ATOM	3966	CE3	TRP	D	190	98.502	15.247	109.338	1.00	36.28
ATOM	3967	CD1	TRP	D	190	95.744	16.149	107.146	1.00	33.94
ATOM	3968	NE1	TRP	D	190	96.520	17.283	107.178	1.00	32.39
ATOM	3969	CZ2	TRP	D	190	98.673	17.911	108.323	1.00	36.31
ATOM	3970	CZ3	TRP	D	190	99.568	16.093	109.678	1.00	37.87
ATOM	3971	CH2	TRP	D	190	99.642	17.414	109.167	1.00	37.94
ATOM	3972	C	TRP	D	190	95.750	11.361	107.773	1.00	35.45
ATOM	3973	O	TRP	D	190	94.747	10.822	107.322	1.00	35.52
ATOM	3974	N	LEU	D	191	96.484	10.821	108.734	1.00	36.10
ATOM	3975	CA	LEU	D	191	96.161	9.520	109.307	1.00	37.96
ATOM	3976	CB	LEU	D	191	97.143	8.455	108.812	1.00	39.10
ATOM	3977	CG	LEU	D	191	97.237	8.046	107.349	1.00	39.59
ATOM	3978	CD1	LEU	D	191	98.320	6.988	107.239	1.00	40.57
ATOM	3979	CD2	LEU	D	191	95.915	7.493	106.856	1.00	39.59
ATOM	3980	C	LEU	D	191	96.252	9.520	110.824	1.00	38.40
ATOM	3981	O	LEU	D	191	97.307	9.861	111.376	1.00	39.40
ATOM	3982	N	LYS	D	192	95.168	9.144	111.504	1.00	36.74
ATOM	3983	CA	LYS	D	192	95.237	9.056	112.957	1.00	34.76
ATOM	3984	CB	LYS	D	192	93.912	9.326	113.658	1.00	33.63
ATOM	3985	CG	LYS	D	192	94.034	8.999	115.137	1.00	31.25
ATOM	3986	CD	LYS	D	192	92.711	8.816	115.826	1.00	32.21
ATOM	3987	CE	LYS	D	192	92.027	10.142	116.087	1.00	32.40
ATOM	3988	NZ	LYS	D	192	91.606	10.260	117.511	1.00	29.92
ATOM	3989	C	LYS	D	192	95.633	7.623	113.239	1.00	34.69
ATOM	3990	O	LYS	D	192	94.914	6.684	112.883	1.00	33.43
ATOM	3991	N	ASN	D	193	96.788	7.468	113.874	1.00	35.21
ATOM	3992	CA	ASN	D	193	97.338	6.165	114.216	1.00	35.69
ATOM	3993	CB	ASN	D	193	96.534	5.508	115.331	1.00	34.53
ATOM	3994	CG	ASN	D	193	96.728	6.204	116.643	1.00	34.30
ATOM	3995	OD1	ASN	D	193	97.855	6.551	117.004	1.00	31.94
ATOM	3996	ND2	ASN	D	193	95.636	6.419	117.372	1.00	34.92
ATOM	3997	C	ASN	D	193	97.445	5.224	113.033	1.00	36.74
ATOM	3998	O	ASN	D	193	97.162	4.029	113.144	1.00	35.50
ATOM	3999	N	GLY	D	194	97.855	5.777	111.897	1.00	38.21
ATOM	4000	CA	GLY	D	194	98.039	4.969	110.707	1.00	38.61
ATOM	4001	C	GLY	D	194	96.803	4.626	109.908	1.00	38.67
ATOM	4002	O	GLY	D	194	96.913	4.006	108.856	1.00	39.28
ATOM	4003	N	LYS	D	195	95.628	5.013	110.382	1.00	38.69
ATOM	4004	CA	LYS	D	195	94.417	4.703	109.639	1.00	37.44
ATOM	4005	CB	LYS	D	195	93.403	4.009	110.553	1.00	36.65
ATOM	4006	C	LYS	D	195	93.811	5.959	109.018	1.00	37.35
ATOM	4007	O	LYS	D	195	94.169	7.081	109.380	1.00	36.18
ATOM	4008	N	GLU	D	196	92.917	5.759	108.056	1.00	39.04
ATOM	4009	CA	GLU	D	196	92.237	6.860	107.394	1.00	40.62
ATOM	4010	CB	GLU	D	196	91.150	6.317	106.463	1.00	41.16
ATOM	4011	C	GLU	D	196	91.612	7.697	108.500	1.00	42.49
ATOM	4012	O	GLU	D	196	91.058	7.154	109.457	1.00	42.76
ATOM	4013	N	PHE	D	197	91.704	9.016	108.380	1.00	45.15
ATOM	4014	CA	PHE	D	197	91.161	9.905	109.404	1.00	47.11

Table 1

ATOM	4015	CB	PHE	D	197	92.281	10.763	109.997	1.00	48.35
ATOM	4016	CG	PHE	D	197	91.847	11.619	111.151	1.00	50.43
ATOM	4017	CD1	PHE	D	197	92.496	12.818	111.422	1.00	51.39
ATOM	4018	CD2	PHE	D	197	90.812	11.214	111.995	1.00	51.03
ATOM	4019	CE1	PHE	D	197	92.122	13.601	112.522	1.00	51.27
ATOM	4020	CE2	PHE	D	197	90.433	11.988	113.095	1.00	49.59
ATOM	4021	CZ	PHE	D	197	91.087	13.181	113.358	1.00	49.70
ATOM	4022	C	PHE	D	197	90.082	10.824	108.856	1.00	48.38
ATOM	4023	O	PHE	D	197	90.387	11.911	108.379	1.00	49.86
ATOM	4024	N	LYS	D	198	88.826	10.396	108.925	1.00	49.00
ATOM	4025	CA	LYS	D	198	87.725	11.217	108.433	1.00	49.34
ATOM	4026	CB	LYS	D	198	86.570	10.307	107.993	1.00	49.48
ATOM	4027	C	LYS	D	198	87.268	12.189	109.537	1.00	49.85
ATOM	4028	O	LYS	D	198	87.350	11.874	110.719	1.00	50.32
ATOM	4029	N	PRO	D	199	86.785	13.385	109.161	1.00	50.70
ATOM	4030	CD	PRO	D	199	86.568	13.840	107.780	1.00	51.66
ATOM	4031	CA	PRO	D	199	86.321	14.400	110.116	1.00	51.18
ATOM	4032	CB	PRO	D	199	85.886	15.551	109.217	1.00	51.42
ATOM	4033	CG	PRO	D	199	85.464	14.847	107.961	1.00	52.15
ATOM	4034	C	PRO	D	199	85.218	13.976	111.074	1.00	51.82
ATOM	4035	O	PRO	D	199	85.035	14.603	112.125	1.00	52.82
ATOM	4036	N	ASP	D	200	84.472	12.929	110.728	1.00	52.67
ATOM	4037	CA	ASP	D	200	83.397	12.455	111.609	1.00	52.73
ATOM	4038	CB	ASP	D	200	82.415	11.550	110.879	1.00	54.01
ATOM	4039	CG	ASP	D	200	81.571	12.301	109.917	1.00	56.59
ATOM	4040	OD1	ASP	D	200	82.109	12.649	108.841	1.00	58.29
ATOM	4041	OD2	ASP	D	200	80.386	12.552	110.257	1.00	57.25
ATOM	4042	C	ASP	D	200	83.986	11.647	112.731	1.00	51.43
ATOM	4043	O	ASP	D	200	83.264	11.159	113.606	1.00	51.56
ATOM	4044	N	HIS	D	201	85.296	11.482	112.683	1.00	50.04
ATOM	4045	CA	HIS	D	201	85.995	10.714	113.697	1.00	50.04
ATOM	4046	CB	HIS	D	201	87.400	10.355	113.216	1.00	54.12
ATOM	4047	CG	HIS	D	201	87.430	9.254	112.200	1.00	59.01
ATOM	4048	CD2	HIS	D	201	88.217	8.159	112.102	1.00	60.50
ATOM	4049	ND1	HIS	D	201	86.591	9.220	111.103	1.00	61.62
ATOM	4050	CE1	HIS	D	201	86.857	8.148	110.373	1.00	61.43
ATOM	4051	NE2	HIS	D	201	87.836	7.485	110.957	1.00	61.73
ATOM	4052	C	HIS	D	201	86.092	11.457	115.036	1.00	48.25
ATOM	4053	O	HIS	D	201	86.576	10.892	116.025	1.00	49.24
ATOM	4054	N	ARG	D	202	85.647	12.717	115.090	1.00	44.11
ATOM	4055	CA	ARG	D	202	85.673	13.443	116.354	1.00	42.29
ATOM	4056	CB	ARG	D	202	87.067	14.035	116.596	1.00	38.00
ATOM	4057	CG	ARG	D	202	87.460	15.167	115.659	1.00	33.51
ATOM	4058	CD	ARG	D	202	88.948	15.528	115.748	1.00	27.20
ATOM	4059	NE	ARG	D	202	89.348	15.969	117.079	1.00	22.95
ATOM	4060	CZ	ARG	D	202	89.011	17.130	117.633	1.00	18.84
ATOM	4061	NH1	ARG	D	202	88.259	18.008	116.987	1.00	15.62
ATOM	4062	NH2	ARG	D	202	89.432	17.411	118.851	1.00	17.58
ATOM	4063	C	ARG	D	202	84.622	14.532	116.313	1.00	43.43
ATOM	4064	O	ARG	D	202	84.375	15.108	115.254	1.00	44.47
ATOM	4065	N	ILE	D	203	84.001	14.806	117.459	1.00	43.13
ATOM	4066	CA	ILE	D	203	82.970	15.840	117.525	1.00	44.86
ATOM	4067	CB	ILE	D	203	82.374	15.992	118.974	1.00	45.75
ATOM	4068	CG2	ILE	D	203	81.579	14.742	119.350	1.00	44.96
ATOM	4069	CG1	ILE	D	203	83.484	16.303	119.990	1.00	45.71

Table 1

ATOM	4070	CD1	ILE	D	203	84.635	15.309	120.011	1.00	46.02
ATOM	4071	C	ILE	D	203	83.552	17.180	117.058	1.00	45.25
ATOM	4072	O	ILE	D	203	84.687	17.528	117.393	1.00	44.55
ATOM	4073	N	GLY	D	204	82.776	17.921	116.269	1.00	45.78
ATOM	4074	CA	GLY	D	204	83.254	19.192	115.751	1.00	44.14
ATOM	4075	C	GLY	D	204	84.179	18.966	114.569	1.00	42.10
ATOM	4076	O	GLY	D	204	84.496	19.897	113.835	1.00	42.25
ATOM	4077	N	GLY	D	205	84.614	17.720	114.400	1.00	41.53
ATOM	4078	CA	GLY	D	205	85.494	17.359	113.300	1.00	42.52
ATOM	4079	C	GLY	D	205	86.826	18.076	113.305	1.00	43.08
ATOM	4080	O	GLY	D	205	87.429	18.274	114.367	1.00	43.80
ATOM	4081	N	TYR	D	206	87.284	18.468	112.118	1.00	42.12
ATOM	4082	CA	TYR	D	206	88.552	19.174	111.986	1.00	40.97
ATOM	4083	CB	TYR	D	206	89.701	18.194	112.168	1.00	43.57
ATOM	4084	CG	TYR	D	206	89.726	17.090	111.150	1.00	44.70
ATOM	4085	CD1	TYR	D	206	89.353	15.795	111.490	1.00	46.53
ATOM	4086	CE1	TYR	D	206	89.397	14.773	110.552	1.00	49.43
ATOM	4087	CD2	TYR	D	206	90.138	17.341	109.845	1.00	47.44
ATOM	4088	CE2	TYR	D	206	90.181	16.339	108.900	1.00	49.64
ATOM	4089	CZ	TYR	D	206	89.811	15.056	109.254	1.00	51.35
ATOM	4090	OH	TYR	D	206	89.844	14.073	108.292	1.00	53.81
ATOM	4091	C	TYR	D	206	88.682	19.858	110.629	1.00	40.00
ATOM	4092	O	TYR	D	206	88.095	19.410	109.645	1.00	39.98
ATOM	4093	N	LYS	D	207	89.458	20.936	110.577	1.00	39.38
ATOM	4094	CA	LYS	D	207	89.662	21.667	109.332	1.00	40.21
ATOM	4095	CB	LYS	D	207	89.458	23.173	109.563	1.00	38.02
ATOM	4096	C	LYS	D	207	91.054	21.400	108.736	1.00	41.63
ATOM	4097	O	LYS	D	207	92.067	21.362	109.454	1.00	41.52
ATOM	4098	N	VAL	D	208	91.090	21.206	107.418	1.00	42.22
ATOM	4099	CA	VAL	D	208	92.337	20.948	106.711	1.00	42.05
ATOM	4100	CB	VAL	D	208	92.261	19.614	105.919	1.00	41.48
ATOM	4101	CG1	VAL	D	208	93.631	19.253	105.364	1.00	40.66
ATOM	4102	CG2	VAL	D	208	91.745	18.505	106.816	1.00	40.29
ATOM	4103	C	VAL	D	208	92.626	22.081	105.736	1.00	42.09
ATOM	4104	O	VAL	D	208	92.114	22.079	104.626	1.00	43.46
ATOM	4105	N	ARG	D	209	93.429	23.053	106.151	1.00	42.59
ATOM	4106	CA	ARG	D	209	93.776	24.165	105.276	1.00	44.83
ATOM	4107	CB	ARG	D	209	94.227	25.362	106.117	1.00	44.83
ATOM	4108	C	ARG	D	209	94.904	23.678	104.354	1.00	45.93
ATOM	4109	O	ARG	D	209	96.055	23.561	104.783	1.00	46.40
ATOM	4110	N	TYR	D	210	94.562	23.382	103.097	1.00	46.61
ATOM	4111	CA	TYR	D	210	95.530	22.877	102.125	1.00	45.87
ATOM	4112	CB	TYR	D	210	94.814	22.377	100.882	1.00	45.46
ATOM	4113	CG	TYR	D	210	93.833	21.280	101.175	1.00	47.79
ATOM	4114	CD1	TYR	D	210	92.470	21.552	101.287	1.00	48.81
ATOM	4115	CE1	TYR	D	210	91.556	20.538	101.594	1.00	50.01
ATOM	4116	CD2	TYR	D	210	94.268	19.966	101.376	1.00	48.67
ATOM	4117	CE2	TYR	D	210	93.365	18.942	101.685	1.00	49.71
ATOM	4118	CZ	TYR	D	210	92.011	19.236	101.793	1.00	50.16
ATOM	4119	OH	TYR	D	210	91.117	18.233	102.101	1.00	51.87
ATOM	4120	C	TYR	D	210	96.573	23.899	101.725	1.00	44.94
ATOM	4121	O	TYR	D	210	97.716	23.545	101.414	1.00	44.92
ATOM	4122	N	ALA	D	211	96.178	25.168	101.728	1.00	43.47
ATOM	4123	CA	ALA	D	211	97.100	26.233	101.376	1.00	42.49
ATOM	4124	CB	ALA	D	211	96.368	27.551	101.316	1.00	41.51

Table 1

ATOM	4125	C	ALA	D	211	98.206	26.301	102.415	1.00	42.14
ATOM	4126	O	ALA	D	211	99.284	26.815	102.153	1.00	42.30
ATOM	4127	N	THR	D	212	97.931	25.764	103.596	1.00	43.17
ATOM	4128	CA	THR	D	212	98.892	25.775	104.683	1.00	43.50
ATOM	4129	CB	THR	D	212	98.255	26.374	105.929	1.00	44.87
ATOM	4130	OG1	THR	D	212	97.646	27.622	105.577	1.00	44.88
ATOM	4131	CG2	THR	D	212	99.307	26.626	107.001	1.00	47.61
ATOM	4132	C	THR	D	212	99.459	24.392	104.994	1.00	42.04
ATOM	4133	O	THR	D	212	100.328	24.244	105.851	1.00	41.28
ATOM	4134	N	TRP	D	213	98.979	23.380	104.284	1.00	41.50
ATOM	4135	CA	TRP	D	213	99.477	22.030	104.499	1.00	41.66
ATOM	4136	CB	TRP	D	213	100.965	21.957	104.160	1.00	42.60
ATOM	4137	CG	TRP	D	213	101.248	22.323	102.770	1.00	44.75
ATOM	4138	CD2	TRP	D	213	101.116	21.472	101.635	1.00	44.62
ATOM	4139	CE2	TRP	D	213	101.425	22.245	100.498	1.00	45.13
ATOM	4140	CE3	TRP	D	213	100.762	20.128	101.469	1.00	44.93
ATOM	4141	CD1	TRP	D	213	101.623	23.548	102.299	1.00	45.15
ATOM	4142	NE1	TRP	D	213	101.730	23.510	100.931	1.00	46.03
ATOM	4143	CZ2	TRP	D	213	101.392	21.720	99.206	1.00	45.66
ATOM	4144	CZ3	TRP	D	213	100.727	19.605	100.192	1.00	46.75
ATOM	4145	CH2	TRP	D	213	101.042	20.402	99.071	1.00	46.85
ATOM	4146	C	TRP	D	213	99.309	21.671	105.953	1.00	40.31
ATOM	4147	O	TRP	D	213	100.199	21.085	106.565	1.00	40.74
ATOM	4148	N	SER	D	214	98.159	22.002	106.508	1.00	38.32
ATOM	4149	CA	SER	D	214	97.951	21.747	107.912	1.00	38.09
ATOM	4150	CB	SER	D	214	98.153	23.056	108.661	1.00	38.40
ATOM	4151	OG	SER	D	214	97.366	24.080	108.070	1.00	37.60
ATOM	4152	C	SER	D	214	96.591	21.177	108.268	1.00	37.89
ATOM	4153	O	SER	D	214	95.641	21.253	107.483	1.00	38.08
ATOM	4154	N	ILE	D	215	96.517	20.591	109.459	1.00	35.82
ATOM	4155	CA	ILE	D	215	95.268	20.055	109.961	1.00	34.85
ATOM	4156	CB	ILE	D	215	95.305	18.522	110.127	1.00	34.07
ATOM	4157	CG2	ILE	D	215	96.448	18.109	111.040	1.00	33.74
ATOM	4158	CG1	ILE	D	215	93.954	18.044	110.668	1.00	33.63
ATOM	4159	CD1	ILE	D	215	93.741	16.544	110.588	1.00	31.56
ATOM	4160	C	ILE	D	215	95.051	20.732	111.306	1.00	34.51
ATOM	4161	O	ILE	D	215	95.996	20.944	112.068	1.00	34.28
ATOM	4162	N	ILE	D	216	93.804	21.086	111.588	1.00	33.79
ATOM	4163	CA	ILE	D	216	93.486	21.773	112.828	1.00	32.42
ATOM	4164	CB	ILE	D	216	93.075	23.230	112.515	1.00	32.82
ATOM	4165	CG2	ILE	D	216	92.639	23.949	113.784	1.00	32.35
ATOM	4166	CG1	ILE	D	216	94.249	23.947	111.848	1.00	31.96
ATOM	4167	CD1	ILE	D	216	93.925	25.324	111.396	1.00	31.43
ATOM	4168	C	ILE	D	216	92.379	21.080	113.619	1.00	31.47
ATOM	4169	O	ILE	D	216	91.356	20.690	113.061	1.00	30.20
ATOM	4170	N	MET	D	217	92.601	20.932	114.921	1.00	30.40
ATOM	4171	CA	MET	D	217	91.639	20.307	115.808	1.00	31.05
ATOM	4172	CB	MET	D	217	92.220	19.030	116.405	1.00	31.90
ATOM	4173	CG	MET	D	217	92.655	18.028	115.372	1.00	34.20
ATOM	4174	SD	MET	D	217	92.974	16.395	116.081	1.00	39.57
ATOM	4175	CE	MET	D	217	94.743	16.222	115.824	1.00	33.97
ATOM	4176	C	MET	D	217	91.310	21.268	116.938	1.00	32.05
ATOM	4177	O	MET	D	217	92.201	21.789	117.604	1.00	30.41
ATOM	4178	N	ASP	D	218	90.019	21.482	117.150	1.00	34.51
ATOM	4179	CA	ASP	D	218	89.503	22.367	118.186	1.00	34.94

Table 1

ATOM	4180	CB	ASP	D	218	88.201	22.968	117.642	1.00	35.60
ATOM	4181	CG	ASP	D	218	87.680	24.115	118.468	1.00	38.16
ATOM	4182	OD1	ASP	D	218	87.193	23.858	119.592	1.00	40.42
ATOM	4183	OD2	ASP	D	218	87.753	25.272	117.989	1.00	37.02
ATOM	4184	C	ASP	D	218	89.268	21.533	119.460	1.00	35.32
ATOM	4185	O	ASP	D	218	89.088	20.318	119.380	1.00	37.02
ATOM	4186	N	SER	D	219	89.294	22.181	120.623	1.00	35.62
ATOM	4187	CA	SER	D	219	89.073	21.525	121.916	1.00	36.41
ATOM	4188	CB	SER	D	219	87.616	21.757	122.361	1.00	37.09
ATOM	4189	OG	SER	D	219	87.424	21.434	123.736	1.00	40.88
ATOM	4190	C	SER	D	219	89.422	20.024	121.962	1.00	35.85
ATOM	4191	O	SER	D	219	88.535	19.165	122.012	1.00	35.43
ATOM	4192	N	VAL	D	220	90.721	19.729	121.951	1.00	35.38
ATOM	4193	CA	VAL	D	220	91.217	18.356	121.999	1.00	34.96
ATOM	4194	CB	VAL	D	220	92.725	18.305	121.745	1.00	34.89
ATOM	4195	CG1	VAL	D	220	93.016	18.848	120.369	1.00	35.35
ATOM	4196	CG2	VAL	D	220	93.471	19.095	122.824	1.00	34.72
ATOM	4197	C	VAL	D	220	90.940	17.663	123.329	1.00	34.86
ATOM	4198	O	VAL	D	220	91.165	18.204	124.403	1.00	35.98
ATOM	4199	N	VAL	D	221	90.470	16.437	123.227	1.00	34.78
ATOM	4200	CA	VAL	D	221	90.117	15.631	124.373	1.00	34.91
ATOM	4201	CB	VAL	D	221	88.632	15.251	124.235	1.00	34.42
ATOM	4202	CG1	VAL	D	221	87.779	16.515	124.192	1.00	30.48
ATOM	4203	CG2	VAL	D	221	88.423	14.475	122.935	1.00	30.80
ATOM	4204	C	VAL	D	221	91.000	14.374	124.353	1.00	35.97
ATOM	4205	O	VAL	D	221	91.607	14.056	123.332	1.00	37.52
ATOM	4206	N	PRO	D	222	91.068	13.637	125.469	1.00	35.56
ATOM	4207	CD	PRO	D	222	90.372	13.891	126.742	1.00	35.68
ATOM	4208	CA	PRO	D	222	91.883	12.419	125.555	1.00	34.78
ATOM	4209	CB	PRO	D	222	91.426	11.801	126.874	1.00	36.22
ATOM	4210	CG	PRO	D	222	91.150	13.011	127.712	1.00	36.43
ATOM	4211	C	PRO	D	222	91.714	11.458	124.383	1.00	33.09
ATOM	4212	O	PRO	D	222	92.682	10.842	123.935	1.00	33.47
ATOM	4213	N	SER	D	223	90.490	11.325	123.887	1.00	31.05
ATOM	4214	CA	SER	D	223	90.250	10.412	122.783	1.00	31.65
ATOM	4215	CB	SER	D	223	88.761	10.353	122.460	1.00	29.34
ATOM	4216	OG	SER	D	223	88.308	11.570	121.913	1.00	32.73
ATOM	4217	C	SER	D	223	91.041	10.824	121.545	1.00	32.52
ATOM	4218	O	SER	D	223	91.237	10.033	120.627	1.00	33.05
ATOM	4219	N	ASP	D	224	91.501	12.068	121.524	1.00	33.64
ATOM	4220	CA	ASP	D	224	92.276	12.556	120.394	1.00	33.83
ATOM	4221	CB	ASP	D	224	92.216	14.088	120.303	1.00	33.17
ATOM	4222	CG	ASP	D	224	90.866	14.593	119.820	1.00	33.79
ATOM	4223	OD1	ASP	D	224	90.395	14.105	118.769	1.00	35.24
ATOM	4224	OD2	ASP	D	224	90.278	15.478	120.482	1.00	32.14
ATOM	4225	C	ASP	D	224	93.723	12.116	120.515	1.00	34.68
ATOM	4226	O	ASP	D	224	94.450	12.112	119.531	1.00	35.14
ATOM	4227	N	LYS	D	225	94.146	11.753	121.722	1.00	35.77
ATOM	4228	CA	LYS	D	225	95.527	11.323	121.923	1.00	36.05
ATOM	4229	CB	LYS	D	225	95.731	10.715	123.315	1.00	39.64
ATOM	4230	CG	LYS	D	225	95.658	11.662	124.489	1.00	40.94
ATOM	4231	CD	LYS	D	225	96.158	10.947	125.731	1.00	42.47
ATOM	4232	CE	LYS	D	225	95.590	11.577	126.984	1.00	46.13
ATOM	4233	NZ	LYS	D	225	96.280	11.098	128.215	1.00	48.29
ATOM	4234	C	LYS	D	225	95.907	10.274	120.890	1.00	34.81

Table I

ATOM	4235	O	LYS	D	225	95.151	9.332	120.636	1.00	33.69
ATOM	4236	N	GLY	D	226	97.084	10.432	120.301	1.00	33.57
ATOM	4237	CA	GLY	D	226	97.522	9.469	119.309	1.00	34.57
ATOM	4238	C	GLY	D	226	98.568	10.003	118.352	1.00	34.49
ATOM	4239	O	GLY	D	226	99.121	11.087	118.561	1.00	34.89
ATOM	4240	N	ASN	D	227	98.840	9.231	117.303	1.00	33.54
ATOM	4241	CA	ASN	D	227	99.815	9.604	116.293	1.00	32.79
ATOM	4242	CB	ASN	D	227	100.679	8.401	115.923	1.00	32.45
ATOM	4243	CG	ASN	D	227	101.640	8.011	117.023	1.00	33.66
ATOM	4244	OD1	ASN	D	227	102.419	8.841	117.511	1.00	34.74
ATOM	4245	ND2	ASN	D	227	101.602	6.743	117.413	1.00	30.46
ATOM	4246	C	ASN	D	227	99.123	10.098	115.038	1.00	32.66
ATOM	4247	O	ASN	D	227	98.194	9.471	114.551	1.00	33.96
ATOM	4248	N	TYR	D	228	99.569	11.226	114.511	1.00	32.63
ATOM	4249	CA	TYR	D	228	98.977	11.735	113.289	1.00	32.20
ATOM	4250	CB	TYR	D	228	98.333	13.089	113.532	1.00	30.83
ATOM	4251	CG	TYR	D	228	97.209	12.983	114.498	1.00	28.79
ATOM	4252	CD1	TYR	D	228	97.451	12.854	115.859	1.00	28.66
ATOM	4253	CE1	TYR	D	228	96.417	12.689	116.748	1.00	30.07
ATOM	4254	CD2	TYR	D	228	95.900	12.946	114.050	1.00	31.02
ATOM	4255	CE2	TYR	D	228	94.851	12.782	114.929	1.00	31.42
ATOM	4256	CZ	TYR	D	228	95.115	12.656	116.273	1.00	31.27
ATOM	4257	OH	TYR	D	228	94.062	12.516	117.136	1.00	34.09
ATOM	4258	C	TYR	D	228	100.073	11.843	112.250	1.00	32.68
ATOM	4259	O	TYR	D	228	101.134	12.412	112.511	1.00	32.76
ATOM	4260	N	THR	D	229	99.815	11.278	111.075	1.00	32.13
ATOM	4261	CA	THR	D	229	100.785	11.305	109.992	1.00	30.62
ATOM	4262	CB	THR	D	229	101.199	9.891	109.600	1.00	30.56
ATOM	4263	OG1	THR	D	229	101.602	9.176	110.770	1.00	31.01
ATOM	4264	CG2	THR	D	229	102.357	9.934	108.629	1.00	31.89
ATOM	4265	C	THR	D	229	100.250	12.000	108.756	1.00	29.30
ATOM	4266	O	THR	D	229	99.148	11.716	108.309	1.00	28.58
ATOM	4267	N	CYS	D	230	101.028	12.928	108.217	1.00	30.51
ATOM	4268	CA	CYS	D	230	100.610	13.621	107.011	1.00	32.35
ATOM	4269	C	CYS	D	230	101.289	12.904	105.858	1.00	32.87
ATOM	4270	O	CYS	D	230	102.423	12.417	105.979	1.00	33.82
ATOM	4271	CB	CYS	D	230	101.026	15.088	107.029	1.00	32.58
ATOM	4272	SG	CYS	D	230	102.817	15.348	107.184	1.00	39.09
ATOM	4273	N	ILE	D	231	100.577	12.825	104.746	1.00	32.40
ATOM	4274	CA	ILE	D	231	101.081	12.154	103.574	1.00	32.93
ATOM	4275	CB	ILE	D	231	100.256	10.881	103.314	1.00	33.24
ATOM	4276	CG2	ILE	D	231	100.826	10.114	102.137	1.00	31.63
ATOM	4277	CG1	ILE	D	231	100.263	10.015	104.577	1.00	32.96
ATOM	4278	CD1	ILE	D	231	99.708	8.642	104.375	1.00	34.35
ATOM	4279	C	ILE	D	231	100.958	13.100	102.401	1.00	33.48
ATOM	4280	O	ILE	D	231	99.849	13.355	101.922	1.00	33.16
ATOM	4281	N	VAL	D	232	102.094	13.645	101.971	1.00	33.93
ATOM	4282	CA	VAL	D	232	102.134	14.556	100.834	1.00	36.17
ATOM	4283	CB	VAL	D	232	103.091	15.718	101.072	1.00	34.31
ATOM	4284	CG1	VAL	D	232	103.078	16.635	99.879	1.00	34.18
ATOM	4285	CG2	VAL	D	232	102.691	16.462	102.324	1.00	34.98
ATOM	4286	C	VAL	D	232	102.647	13.721	99.678	1.00	39.40
ATOM	4287	O	VAL	D	232	103.707	13.092	99.775	1.00	39.92
ATOM	4288	N	GLU	D	233	101.907	13.709	98.579	1.00	42.11
ATOM	4289	CA	GLU	D	233	102.320	12.875	97.474	1.00	44.91

Table 1

ATOM	4290	CB	GLU	D	233	101.752	11.482	97.710	1.00	46.98
ATOM	4291	CG	GLU	D	233	101.754	10.584	96.507	1.00	54.51
ATOM	4292	CD	GLU	D	233	101.552	9.132	96.892	1.00	59.37
ATOM	4293	OE1	GLU	D	233	100.659	8.864	97.739	1.00	61.58
ATOM	4294	OE2	GLU	D	233	102.288	8.267	96.348	1.00	59.83
ATOM	4295	C	GLU	D	233	101.941	13.363	96.090	1.00	45.68
ATOM	4296	O	GLU	D	233	100.961	14.096	95.926	1.00	45.02
ATOM	4297	N	ASN	D	234	102.747	12.958	95.105	1.00	45.84
ATOM	4298	CA	ASN	D	234	102.516	13.281	93.701	1.00	45.22
ATOM	4299	CB	ASN	D	234	103.183	14.614	93.314	1.00	45.24
ATOM	4300	CG	ASN	D	234	104.641	14.468	92.946	1.00	44.43
ATOM	4301	OD1	ASN	D	234	105.256	13.422	93.165	1.00	44.59
ATOM	4302	ND2	ASN	D	234	105.210	15.534	92.385	1.00	40.85
ATOM	4303	C	ASN	D	234	103.060	12.112	92.888	1.00	45.49
ATOM	4304	O	ASN	D	234	103.561	11.149	93.464	1.00	45.48
ATOM	4305	N	GLU	D	235	102.965	12.194	91.564	1.00	46.96
ATOM	4306	CA	GLU	D	235	103.410	11.110	90.687	1.00	47.27
ATOM	4307	CB	GLU	D	235	103.165	11.494	89.218	1.00	46.16
ATOM	4308	C	GLU	D	235	104.857	10.643	90.851	1.00	47.83
ATOM	4309	O	GLU	D	235	105.171	9.496	90.533	1.00	48.35
ATOM	4310	N	TYR	D	236	105.735	11.498	91.368	1.00	48.23
ATOM	4311	CA	TYR	D	236	107.139	11.110	91.492	1.00	48.07
ATOM	4312	CB	TYR	D	236	108.000	12.221	90.905	1.00	51.78
ATOM	4313	CG	TYR	D	236	107.449	12.674	89.579	1.00	56.38
ATOM	4314	CD1	TYR	D	236	106.553	13.744	89.501	1.00	58.00
ATOM	4315	CE1	TYR	D	236	105.976	14.112	88.286	1.00	60.31
ATOM	4316	CD2	TYR	D	236	107.757	11.981	88.408	1.00	57.90
ATOM	4317	CE2	TYR	D	236	107.184	12.337	87.190	1.00	60.14
ATOM	4318	CZ	TYR	D	236	106.298	13.401	87.135	1.00	61.38
ATOM	4319	OH	TYR	D	236	105.748	13.758	85.925	1.00	62.75
ATOM	4320	C	TYR	D	236	107.638	10.728	92.876	1.00	45.71
ATOM	4321	O	TYR	D	236	108.803	10.372	93.049	1.00	45.60
ATOM	4322	N	GLY	D	237	106.758	10.783	93.863	1.00	43.72
ATOM	4323	CA	GLY	D	237	107.177	10.429	95.202	1.00	42.52
ATOM	4324	C	GLY	D	237	106.233	10.922	96.275	1.00	42.32
ATOM	4325	O	GLY	D	237	105.280	11.661	95.996	1.00	42.37
ATOM	4326	N	SER	D	238	106.493	10.497	97.509	1.00	40.93
ATOM	4327	CA	SER	D	238	105.678	10.895	98.643	1.00	38.31
ATOM	4328	CB	SER	D	238	104.607	9.848	98.912	1.00	37.78
ATOM	4329	OG	SER	D	238	105.218	8.650	99.344	1.00	39.41
ATOM	4330	C	SER	D	238	106.559	11.027	99.871	1.00	37.41
ATOM	4331	O	SER	D	238	107.577	10.350	99.993	1.00	36.75
ATOM	4332	N	ILE	D	239	106.166	11.919	100.772	1.00	37.40
ATOM	4333	CA	ILE	D	239	106.885	12.138	102.028	1.00	37.41
ATOM	4334	CB	ILE	D	239	107.571	13.516	102.117	1.00	37.31
ATOM	4335	CG2	ILE	D	239	109.017	13.429	101.703	1.00	36.88
ATOM	4336	CG1	ILE	D	239	106.777	14.527	101.305	1.00	38.29
ATOM	4337	CD1	ILE	D	239	107.409	15.895	101.252	1.00	42.39
ATOM	4338	C	ILE	D	239	105.828	12.151	103.098	1.00	38.18
ATOM	4339	O	ILE	D	239	104.672	12.502	102.825	1.00	38.68
ATOM	4340	N	ASN	D	240	106.220	11.777	104.311	1.00	38.07
ATOM	4341	CA	ASN	D	240	105.292	11.775	105.434	1.00	39.19
ATOM	4342	CB	ASN	D	240	104.696	10.375	105.660	1.00	41.17
ATOM	4343	CG	ASN	D	240	105.743	9.348	106.072	1.00	43.52
ATOM	4344	OD1	ASN	D	240	106.601	9.622	106.912	1.00	47.31

Table 1

ATOM	4345	ND2	ASN	D	240	105.665	8.153	105.494	1.00	43.18
ATOM	4346	C	ASN	D	240	105.999	12.246	106.697	1.00	38.45
ATOM	4347	O	ASN	D	240	107.226	12.240	106.778	1.00	38.26
ATOM	4348	N	HIS	D	241	105.218	12.668	107.681	1.00	38.00
ATOM	4349	CA	HIS	D	241	105.777	13.125	108.945	1.00	37.35
ATOM	4350	CB	HIS	D	241	106.127	14.621	108.868	1.00	38.82
ATOM	4351	CG	HIS	D	241	106.784	15.166	110.104	1.00	40.90
ATOM	4352	CD2	HIS	D	241	106.499	16.256	110.857	1.00	40.95
ATOM	4353	ND1	HIS	D	241	107.897	14.588	110.680	1.00	41.06
ATOM	4354	CE1	HIS	D	241	108.266	15.298	111.733	1.00	39.83
ATOM	4355	NE2	HIS	D	241	107.434	16.315	111.861	1.00	40.11
ATOM	4356	C	HIS	D	241	104.713	12.873	109.996	1.00	36.27
ATOM	4357	O	HIS	D	241	103.531	13.167	109.784	1.00	36.50
ATOM	4358	N	THR	D	242	105.125	12.320	111.125	1.00	34.08
ATOM	4359	CA	THR	D	242	104.171	12.037	112.173	1.00	33.41
ATOM	4360	CB	THR	D	242	104.208	10.557	112.512	1.00	33.88
ATOM	4361	OG1	THR	D	242	104.178	9.820	111.286	1.00	34.73
ATOM	4362	CG2	THR	D	242	103.001	10.166	113.359	1.00	32.87
ATOM	4363	C	THR	D	242	104.390	12.880	113.422	1.00	32.39
ATOM	4364	O	THR	D	242	105.515	13.202	113.785	1.00	31.61
ATOM	4365	N	TYR	D	243	103.286	13.266	114.047	1.00	33.00
ATOM	4366	CA	TYR	D	243	103.308	14.064	115.267	1.00	33.46
ATOM	4367	CB	TYR	D	243	102.534	15.373	115.093	1.00	33.45
ATOM	4368	CG	TYR	D	243	103.207	16.364	114.190	1.00	32.79
ATOM	4369	CD1	TYR	D	243	102.642	16.715	112.960	1.00	30.88
ATOM	4370	CE1	TYR	D	243	103.287	17.616	112.106	1.00	31.50
ATOM	4371	CD2	TYR	D	243	104.430	16.937	114.552	1.00	32.94
ATOM	4372	CE2	TYR	D	243	105.086	17.842	113.706	1.00	33.56
ATOM	4373	CZ	TYR	D	243	104.511	18.175	112.482	1.00	32.47
ATOM	4374	OH	TYR	D	243	105.177	19.042	111.641	1.00	30.66
ATOM	4375	C	TYR	D	243	102.640	13.247	116.351	1.00	33.10
ATOM	4376	O	TYR	D	243	101.782	12.400	116.077	1.00	32.05
ATOM	4377	N	GLN	D	244	103.031	13.491	117.588	1.00	33.55
ATOM	4378	CA	GLN	D	244	102.424	12.745	118.661	1.00	35.12
ATOM	4379	CB	GLN	D	244	103.481	12.044	119.495	1.00	37.87
ATOM	4380	CG	GLN	D	244	102.937	10.835	120.198	1.00	43.93
ATOM	4381	CD	GLN	D	244	103.911	10.283	121.205	1.00	48.46
ATOM	4382	OE1	GLN	D	244	105.119	10.215	120.943	1.00	51.99
ATOM	4383	NE2	GLN	D	244	103.398	9.879	122.367	1.00	47.54
ATOM	4384	C	GLN	D	244	101.642	13.719	119.507	1.00	33.39
ATOM	4385	O	GLN	D	244	102.172	14.740	119.947	1.00	31.94
ATOM	4386	N	LEU	D	245	100.365	13.419	119.699	1.00	31.77
ATOM	4387	CA	LEU	D	245	99.535	14.285	120.504	1.00	32.20
ATOM	4388	CB	LEU	D	245	98.189	14.607	119.818	1.00	32.50
ATOM	4389	CG	LEU	D	245	97.244	15.496	120.658	1.00	32.01
ATOM	4390	CD1	LEU	D	245	97.931	16.802	120.993	1.00	31.78
ATOM	4391	CD2	LEU	D	245	95.952	15.779	119.922	1.00	33.00
ATOM	4392	C	LEU	D	245	99.279	13.635	121.842	1.00	31.58
ATOM	4393	O	LEU	D	245	98.968	12.447	121.932	1.00	30.22
ATOM	4394	N	ASP	D	246	99.432	14.437	122.883	1.00	32.78
ATOM	4395	CA	ASP	D	246	99.199	13.994	124.239	1.00	33.03
ATOM	4396	CB	ASP	D	246	100.521	13.828	124.963	1.00	34.24
ATOM	4397	CG	ASP	D	246	100.369	13.061	126.240	1.00	38.04
ATOM	4398	OD1	ASP	D	246	101.348	12.968	127.014	1.00	40.39
ATOM	4399	OD2	ASP	D	246	99.255	12.544	126.464	1.00	41.31

Table 1

ATOM	4400	C	ASP	D	246	98.369	15.077	124.915	1.00	33.21
ATOM	4401	O	ASP	D	246	98.793	16.233	124.987	1.00	33.23
ATOM	4402	N	VAL	D	247	97.181	14.702	125.388	1.00	34.04
ATOM	4403	CA	VAL	D	247	96.259	15.634	126.053	1.00	34.00
ATOM	4404	CB	VAL	D	247	94.819	15.478	125.507	1.00	33.34
ATOM	4405	CG1	VAL	D	247	93.957	16.651	125.942	1.00	31.80
ATOM	4406	CG2	VAL	D	247	94.849	15.355	123.997	1.00	35.20
ATOM	4407	C	VAL	D	247	96.204	15.358	127.557	1.00	34.12
ATOM	4408	O	VAL	D	247	95.933	14.228	127.970	1.00	32.75
ATOM	4409	N	VAL	D	248	96.438	16.394	128.365	1.00	33.95
ATOM	4410	CA	VAL	D	248	96.414	16.264	129.822	1.00	34.42
ATOM	4411	CB	VAL	D	248	97.650	16.919	130.475	1.00	33.86
ATOM	4412	CG1	VAL	D	248	97.646	16.649	131.954	1.00	33.01
ATOM	4413	CG2	VAL	D	248	98.925	16.407	129.844	1.00	35.22
ATOM	4414	C	VAL	D	248	95.202	16.965	130.415	1.00	35.72
ATOM	4415	O	VAL	D	248	94.969	18.134	130.116	1.00	35.44
ATOM	4416	N	GLU	D	249	94.438	16.255	131.246	1.00	36.91
ATOM	4417	CA	GLU	D	249	93.272	16.836	131.917	1.00	38.36
ATOM	4418	CB	GLU	D	249	92.182	15.787	132.122	1.00	41.10
ATOM	4419	CG	GLU	D	249	91.599	15.230	130.847	1.00	46.18
ATOM	4420	CD	GLU	D	249	90.669	14.058	131.103	1.00	48.79
ATOM	4421	OE1	GLU	D	249	91.133	13.032	131.662	1.00	50.76
ATOM	4422	OE2	GLU	D	249	89.476	14.166	130.743	1.00	49.83
ATOM	4423	C	GLU	D	249	93.773	17.262	133.289	1.00	37.17
ATOM	4424	O	GLU	D	249	94.255	16.417	134.030	1.00	37.43
ATOM	4425	N	ARG	D	250	93.675	18.544	133.648	1.00	36.72
ATOM	4426	CA	ARG	D	250	94.156	18.956	134.986	1.00	35.30
ATOM	4427	CB	ARG	D	250	94.622	20.427	135.022	1.00	32.09
ATOM	4428	CG	ARG	D	250	95.801	20.729	134.091	1.00	31.09
ATOM	4429	CD	ARG	D	250	96.960	19.717	134.237	1.00	27.53
ATOM	4430	NE	ARG	D	250	97.736	19.907	135.466	1.00	27.19
ATOM	4431	CZ	ARG	D	250	98.601	20.901	135.671	1.00	23.34
ATOM	4432	NH1	ARG	D	250	98.819	21.807	134.733	1.00	24.08
ATOM	4433	NH2	ARG	D	250	99.236	21.005	136.824	1.00	20.42
ATOM	4434	C	ARG	D	250	93.146	18.699	136.123	1.00	35.26
ATOM	4435	O	ARG	D	250	92.000	18.335	135.877	1.00	36.33
ATOM	4436	N	SER	D	251	93.642	18.752	137.373	1.00	36.16
ATOM	4437	CA	SER	D	251	92.839	18.539	138.596	1.00	35.07
ATOM	4438	CB	SER	D	251	93.267	17.254	139.308	1.00	33.85
ATOM	4439	OG	SER	D	251	93.280	16.152	138.433	1.00	33.32
ATOM	4440	C	SER	D	251	93.050	19.708	139.564	1.00	35.84
ATOM	4441	O	SER	D	251	93.706	19.560	140.601	1.00	36.47
ATOM	4442	N	PRO	D	252	92.505	20.888	139.235	1.00	36.42
ATOM	4443	CD	PRO	D	252	91.828	21.237	137.975	1.00	37.05
ATOM	4444	CA	PRO	D	252	92.655	22.070	140.088	1.00	36.24
ATOM	4445	CB	PRO	D	252	92.319	23.219	139.147	1.00	34.89
ATOM	4446	CG	PRO	D	252	91.286	22.625	138.277	1.00	37.22
ATOM	4447	C	PRO	D	252	91.790	22.066	141.334	1.00	36.91
ATOM	4448	O	PRO	D	252	90.850	22.854	141.469	1.00	36.54
ATOM	4449	N	HIS	D	253	92.122	21.166	142.247	1.00	37.49
ATOM	4450	CA	HIS	D	253	91.406	21.063	143.501	1.00	39.08
ATOM	4451	CB	HIS	D	253	90.229	20.073	143.366	1.00	42.98
ATOM	4452	CG	HIS	D	253	90.599	18.724	142.823	1.00	46.99
ATOM	4453	CD2	HIS	D	253	90.222	18.090	141.686	1.00	48.65
ATOM	4454	ND1	HIS	D	253	91.398	17.830	143.511	1.00	50.87

Table I

ATOM	4455	CE1	HIS	D	253	91.492	16.703	142.823	1.00	51.49
ATOM	4456	NE2	HIS	D	253	90.786	16.835	141.712	1.00	50.65
ATOM	4457	C	HIS	D	253	92.372	20.652	144.608	1.00	36.52
ATOM	4458	O	HIS	D	253	93.441	20.112	144.323	1.00	36.08
ATOM	4459	N	ARG	D	254	92.005	20.933	145.857	1.00	34.39
ATOM	4460	CA	ARG	D	254	92.838	20.590	147.000	1.00	32.02
ATOM	4461	CB	ARG	D	254	92.187	21.070	148.290	1.00	35.17
ATOM	4462	CG	ARG	D	254	90.937	20.319	148.714	1.00	40.73
ATOM	4463	CD	ARG	D	254	90.271	21.102	149.827	1.00	45.75
ATOM	4464	NE	ARG	D	254	89.412	20.288	150.677	1.00	51.38
ATOM	4465	CZ	ARG	D	254	88.375	19.586	150.237	1.00	55.43
ATOM	4466	NH1	ARG	D	254	88.071	19.590	148.942	1.00	58.96
ATOM	4467	NH2	ARG	D	254	87.624	18.904	151.094	1.00	55.71
ATOM	4468	C	ARG	D	254	93.059	19.092	147.045	1.00	29.52
ATOM	4469	O	ARG	D	254	92.338	18.342	146.393	1.00	30.17
ATOM	4470	N	PRO	D	255	94.071	18.634	147.803	1.00	27.73
ATOM	4471	CD	PRO	D	255	95.023	19.467	148.565	1.00	24.12
ATOM	4472	CA	PRO	D	255	94.392	17.199	147.926	1.00	25.71
ATOM	4473	CB	PRO	D	255	95.511	17.190	148.968	1.00	24.99
ATOM	4474	CG	PRO	D	255	96.191	18.531	148.754	1.00	24.65
ATOM	4475	C	PRO	D	255	93.213	16.314	148.344	1.00	25.05
ATOM	4476	O	PRO	D	255	92.296	16.770	149.018	1.00	24.12
ATOM	4477	N	ILE	D	256	93.241	15.050	147.931	1.00	26.53
ATOM	4478	CA	ILE	D	256	92.190	14.096	148.284	1.00	27.73
ATOM	4479	CB	ILE	D	256	91.420	13.556	147.047	1.00	26.74
ATOM	4480	CG2	ILE	D	256	90.767	12.231	147.382	1.00	26.27
ATOM	4481	CG1	ILE	D	256	90.341	14.553	146.621	1.00	24.87
ATOM	4482	CD1	ILE	D	256	90.850	15.688	145.775	1.00	25.75
ATOM	4483	C	ILE	D	256	92.842	12.921	148.981	1.00	28.99
ATOM	4484	O	ILE	D	256	93.811	12.348	148.471	1.00	30.56
ATOM	4485	N	LEU	D	257	92.313	12.564	150.145	1.00	28.90
ATOM	4486	CA	LEU	D	257	92.862	11.449	150.909	1.00	29.82
ATOM	4487	CB	LEU	D	257	92.973	11.863	152.389	1.00	30.22
ATOM	4488	CG	LEU	D	257	93.644	13.245	152.571	1.00	33.19
ATOM	4489	CD1	LEU	D	257	93.479	13.776	153.996	1.00	31.95
ATOM	4490	CD2	LEU	D	257	95.113	13.146	152.208	1.00	32.87
ATOM	4491	C	LEU	D	257	91.945	10.240	150.709	1.00	28.77
ATOM	4492	O	LEU	D	257	90.729	10.401	150.619	1.00	28.70
ATOM	4493	N	GLN	D	258	92.512	9.041	150.596	1.00	27.83
ATOM	4494	CA	GLN	D	258	91.664	7.863	150.411	1.00	29.70
ATOM	4495	CB	GLN	D	258	92.497	6.580	150.272	1.00	28.42
ATOM	4496	C	GLN	D	258	90.763	7.762	151.632	1.00	29.85
ATOM	4497	O	GLN	D	258	91.226	7.912	152.773	1.00	31.42
ATOM	4498	N	ALA	D	259	89.475	7.536	151.401	1.00	27.97
ATOM	4499	CA	ALA	D	259	88.554	7.423	152.510	1.00	26.07
ATOM	4500	CB	ALA	D	259	87.146	7.384	152.001	1.00	24.75
ATOM	4501	C	ALA	D	259	88.903	6.141	153.252	1.00	27.29
ATOM	4502	O	ALA	D	259	89.340	5.165	152.640	1.00	26.71
ATOM	4503	N	GLY	D	260	88.747	6.159	154.573	1.00	27.98
ATOM	4504	CA	GLY	D	260	89.047	4.982	155.365	1.00	28.73
ATOM	4505	C	GLY	D	260	90.465	4.897	155.903	1.00	30.14
ATOM	4506	O	GLY	D	260	90.777	3.963	156.640	1.00	31.06
ATOM	4507	N	LEU	D	261	91.311	5.866	155.549	1.00	30.20
ATOM	4508	CA	LEU	D	261	92.714	5.900	155.979	1.00	30.06
ATOM	4509	CB	LEU	D	261	93.619	5.501	154.809	1.00	28.40

Table I

ATOM	4510	CG	LEU	D	261	93.420	4.108	154.217	1.00	27.35
ATOM	4511	CD1	LEU	D	261	94.115	3.975	152.871	1.00	26.70
ATOM	4512	CD2	LEU	D	261	93.945	3.097	155.199	1.00	23.13
ATOM	4513	C	LEU	D	261	93.120	7.298	156.440	1.00	30.61
ATOM	4514	O	LEU	D	261	92.839	8.275	155.753	1.00	33.23
ATOM	4515	N	PRO	D	262	93.804	7.413	157.593	1.00	30.88
ATOM	4516	CD	PRO	D	262	94.125	8.712	158.211	1.00	30.49
ATOM	4517	CA	PRO	D	262	94.210	6.314	158.478	1.00	30.82
ATOM	4518	CB	PRO	D	262	95.108	7.007	159.500	1.00	30.09
ATOM	4519	CG	PRO	D	262	94.453	8.323	159.648	1.00	29.04
ATOM	4520	C	PRO	D	262	92.988	5.705	159.132	1.00	29.98
ATOM	4521	O	PRO	D	262	91.935	6.341	159.211	1.00	29.28
ATOM	4522	N	ALA	D	263	93.123	4.469	159.594	1.00	29.91
ATOM	4523	CA	ALA	D	263	92.001	3.809	160.255	1.00	30.35
ATOM	4524	CB	ALA	D	263	91.743	2.421	159.641	1.00	28.77
ATOM	4525	C	ALA	D	263	92.250	3.684	161.750	1.00	29.36
ATOM	4526	O	ALA	D	263	93.392	3.646	162.206	1.00	27.15
ATOM	4527	N	ASN	D	264	91.168	3.651	162.514	1.00	30.53
ATOM	4528	CA	ASN	D	264	91.289	3.495	163.945	1.00	31.88
ATOM	4529	CB	ASN	D	264	89.917	3.445	164.598	1.00	31.69
ATOM	4530	CG	ASN	D	264	89.206	4.744	164.501	1.00	33.36
ATOM	4531	OD1	ASN	D	264	89.845	5.797	164.471	1.00	34.00
ATOM	4532	ND2	ASN	D	264	87.873	4.700	164.463	1.00	36.85
ATOM	4533	C	ASN	D	264	92.024	2.190	164.215	1.00	32.38
ATOM	4534	O	ASN	D	264	91.845	1.204	163.499	1.00	30.61
ATOM	4535	N	LYS	D	265	92.852	2.195	165.253	1.00	33.51
ATOM	4536	CA	LYS	D	265	93.620	1.023	165.624	1.00	34.84
ATOM	4537	CB	LYS	D	265	95.106	1.209	165.275	1.00	36.12
ATOM	4538	CG	LYS	D	265	95.388	1.866	163.932	1.00	38.63
ATOM	4539	CD	LYS	D	265	94.975	1.003	162.761	1.00	39.25
ATOM	4540	CE	LYS	D	265	96.191	0.440	162.060	1.00	39.05
ATOM	4541	NZ	LYS	D	265	97.026	1.523	161.471	1.00	39.06
ATOM	4542	C	LYS	D	265	93.524	0.788	167.121	1.00	36.31
ATOM	4543	O	LYS	D	265	93.691	1.715	167.911	1.00	38.31
ATOM	4544	N	THR	D	266	93.240	-0.447	167.515	1.00	37.04
ATOM	4545	CA	THR	D	266	93.210	-0.790	168.926	1.00	37.70
ATOM	4546	CB	THR	D	266	91.882	-1.444	169.345	1.00	36.73
ATOM	4547	OG1	THR	D	266	90.837	-0.468	169.294	1.00	37.40
ATOM	4548	CG2	THR	D	266	91.977	-1.990	170.769	1.00	37.09
ATOM	4549	C	THR	D	266	94.349	-1.794	169.078	1.00	39.32
ATOM	4550	O	THR	D	266	94.422	-2.774	168.350	1.00	38.85
ATOM	4551	N	VAL	D	267	95.269	-1.530	169.995	1.00	42.44
ATOM	4552	CA	VAL	D	267	96.386	-2.444	170.201	1.00	44.11
ATOM	4553	CB	VAL	D	267	97.636	-1.990	169.439	1.00	43.44
ATOM	4554	CG1	VAL	D	267	97.387	-2.084	167.942	1.00	43.56
ATOM	4555	CG2	VAL	D	267	97.994	-0.577	169.845	1.00	43.00
ATOM	4556	C	VAL	D	267	96.760	-2.599	171.669	1.00	45.67
ATOM	4557	O	VAL	D	267	96.228	-1.895	172.545	1.00	44.80
ATOM	4558	N	ALA	D	268	97.676	-3.535	171.921	1.00	46.81
ATOM	4559	CA	ALA	D	268	98.153	-3.831	173.270	1.00	46.58
ATOM	4560	CB	ALA	D	268	98.563	-5.288	173.373	1.00	44.62
ATOM	4561	C	ALA	D	268	99.335	-2.942	173.602	1.00	46.29
ATOM	4562	O	ALA	D	268	100.121	-2.592	172.722	1.00	44.98
ATOM	4563	N	LEU	D	269	99.452	-2.578	174.876	1.00	47.03
ATOM	4564	CA	LEU	D	269	100.548	-1.731	175.334	1.00	47.97

Table I

ATOM	4565	CB	LEU	D	269	100.533	-1.626	176.869	1.00	47.45
ATOM	4566	CG	LEU	D	269	101.303	-0.473	177.541	1.00	48.73
ATOM	4567	CD1	LEU	D	269	101.066	-0.503	179.041	1.00	47.47
ATOM	4568	CD2	LEU	D	269	102.800	-0.570	177.240	1.00	49.24
ATOM	4569	C	LEU	D	269	101.859	-2.354	174.861	1.00	48.02
ATOM	4570	O	LEU	D	269	102.082	-3.548	175.052	1.00	48.67
ATOM	4571	N	GLY	D	270	102.712	-1.551	174.230	1.00	47.32
ATOM	4572	CA	GLY	D	270	103.989	-2.060	173.761	1.00	47.45
ATOM	4573	C	GLY	D	270	104.044	-2.496	172.307	1.00	47.67
ATOM	4574	O	GLY	D	270	105.125	-2.778	171.784	1.00	47.93
ATOM	4575	N	SER	D	271	102.895	-2.552	171.643	1.00	47.17
ATOM	4576	CA	SER	D	271	102.861	-2.965	170.246	1.00	46.98
ATOM	4577	CB	SER	D	271	101.416	-3.160	169.795	1.00	46.79
ATOM	4578	OG	SER	D	271	100.759	-4.117	170.611	1.00	50.01
ATOM	4579	C	SER	D	271	103.562	-1.964	169.327	1.00	47.46
ATOM	4580	O	SER	D	271	104.065	-0.933	169.770	1.00	47.22
ATOM	4581	N	ASN	D	272	103.602	-2.288	168.042	1.00	47.66
ATOM	4582	CA	ASN	D	272	104.220	-1.425	167.045	1.00	48.16
ATOM	4583	CB	ASN	D	272	105.418	-2.118	166.394	1.00	47.89
ATOM	4584	CG	ASN	D	272	106.677	-1.978	167.204	1.00	48.55
ATOM	4585	OD1	ASN	D	272	107.266	-0.901	167.263	1.00	49.20
ATOM	4586	ND2	ASN	D	272	107.099	-3.063	167.841	1.00	49.75
ATOM	4587	C	ASN	D	272	103.179	-1.127	165.986	1.00	48.54
ATOM	4588	O	ASN	D	272	103.003	-1.902	165.049	1.00	51.19
ATOM	4589	N	VAL	D	273	102.484	-0.008	166.133	1.00	47.34
ATOM	4590	CA	VAL	D	273	101.452	0.368	165.172	1.00	47.18
ATOM	4591	CB	VAL	D	273	100.245	1.014	165.909	1.00	48.44
ATOM	4592	CG1	VAL	D	273	100.692	2.319	166.584	1.00	49.44
ATOM	4593	CG2	VAL	D	273	99.093	1.269	164.936	1.00	47.73
ATOM	4594	C	VAL	D	273	101.989	1.355	164.121	1.00	45.31
ATOM	4595	O	VAL	D	273	102.945	2.090	164.377	1.00	45.17
ATOM	4596	N	GLU	D	274	101.385	1.353	162.934	1.00	42.57
ATOM	4597	CA	GLU	D	274	101.778	2.281	161.876	1.00	40.24
ATOM	4598	CB	GLU	D	274	102.807	1.650	160.942	1.00	41.03
ATOM	4599	CG	GLU	D	274	102.204	0.676	159.951	1.00	43.76
ATOM	4600	CD	GLU	D	274	103.232	0.089	159.019	1.00	44.63
ATOM	4601	OE1	GLU	D	274	104.294	-0.338	159.533	1.00	47.63
ATOM	4602	OE2	GLU	D	274	102.979	0.046	157.789	1.00	42.57
ATOM	4603	C	GLU	D	274	100.533	2.673	161.081	1.00	37.93
ATOM	4604	O	GLU	D	274	99.781	1.815	160.617	1.00	36.45
ATOM	4605	N	PHE	D	275	100.317	3.976	160.934	1.00	36.52
ATOM	4606	CA	PHE	D	275	99.155	4.499	160.210	1.00	33.93
ATOM	4607	CB	PHE	D	275	98.654	5.787	160.860	1.00	32.58
ATOM	4608	CG	PHE	D	275	98.012	5.585	162.206	1.00	29.81
ATOM	4609	CD1	PHE	D	275	96.732	5.052	162.307	1.00	28.52
ATOM	4610	CD2	PHE	D	275	98.682	5.950	163.373	1.00	26.90
ATOM	4611	CE1	PHE	D	275	96.127	4.893	163.554	1.00	30.09
ATOM	4612	CE2	PHE	D	275	98.088	5.794	164.619	1.00	26.27
ATOM	4613	CZ	PHE	D	275	96.811	5.267	164.713	1.00	28.01
ATOM	4614	C	PHE	D	275	99.465	4.779	158.758	1.00	33.21
ATOM	4615	O	PHE	D	275	100.619	4.954	158.380	1.00	32.57
ATOM	4616	N	MET	D	276	98.414	4.829	157.950	1.00	33.97
ATOM	4617	CA	MET	D	276	98.552	5.090	156.529	1.00	34.49
ATOM	4618	CB	MET	D	276	98.052	3.923	155.713	1.00	38.18
ATOM	4619	CG	MET	D	276	98.799	2.645	155.872	1.00	44.09

Table I

ATOM	4620	SD	MET	D	276	98.473	1.821	154.327	1.00	50.23
ATOM	4621	CE	MET	D	276	99.686	2.703	153.271	1.00	48.04
ATOM	4622	C	MET	D	276	97.724	6.274	156.107	1.00	34.32
ATOM	4623	O	MET	D	276	96.730	6.619	156.747	1.00	32.03
ATOM	4624	N	CYS	D	277	98.123	6.871	154.994	1.00	34.70
ATOM	4625	CA	CYS	D	277	97.408	8.007	154.442	1.00	34.96
ATOM	4626	C	CYS	D	277	97.704	8.032	152.943	1.00	33.55
ATOM	4627	O	CYS	D	277	98.843	8.224	152.529	1.00	34.70
ATOM	4628	CB	CYS	D	277	97.892	9.283	155.108	1.00	36.83
ATOM	4629	SG	CYS	D	277	96.863	10.744	154.794	1.00	39.87
ATOM	4630	N	LYS	D	278	96.682	7.820	152.130	1.00	31.82
ATOM	4631	CA	LYS	D	278	96.868	7.799	150.688	1.00	30.45
ATOM	4632	CB	LYS	D	278	96.086	6.611	150.107	1.00	33.60
ATOM	4633	CG	LYS	D	278	96.331	6.278	148.628	1.00	41.46
ATOM	4634	CD	LYS	D	278	95.614	7.246	147.632	1.00	43.28
ATOM	4635	CE	LYS	D	278	95.477	6.643	146.221	1.00	40.06
ATOM	4636	NZ	LYS	D	278	94.721	5.342	146.221	1.00	39.77
ATOM	4637	C	LYS	D	278	96.380	9.128	150.120	1.00	28.42
ATOM	4638	O	LYS	D	278	95.182	9.425	150.132	1.00	27.77
ATOM	4639	N	VAL	D	279	97.316	9.932	149.628	1.00	27.51
ATOM	4640	CA	VAL	D	279	96.987	11.240	149.078	1.00	26.96
ATOM	4641	CB	VAL	D	279	97.969	12.305	149.565	1.00	27.10
ATOM	4642	CG1	VAL	D	279	97.531	13.683	149.075	1.00	28.38
ATOM	4643	CG2	VAL	D	279	98.044	12.278	151.066	1.00	28.56
ATOM	4644	C	VAL	D	279	96.991	11.306	147.560	1.00	27.47
ATOM	4645	O	VAL	D	279	97.666	10.528	146.887	1.00	27.46
ATOM	4646	N	TYR	D	280	96.213	12.243	147.031	1.00	27.87
ATOM	4647	CA	TYR	D	280	96.140	12.481	145.590	1.00	27.91
ATOM	4648	CB	TYR	D	280	94.879	11.896	144.946	1.00	25.61
ATOM	4649	CG	TYR	D	280	94.783	12.292	143.492	1.00	20.03
ATOM	4650	CD1	TYR	D	280	95.581	11.663	142.538	1.00	21.49
ATOM	4651	CE1	TYR	D	280	95.641	12.113	141.214	1.00	20.60
ATOM	4652	CD2	TYR	D	280	94.016	13.377	143.092	1.00	18.90
ATOM	4653	CE2	TYR	D	280	94.064	13.843	141.766	1.00	22.69
ATOM	4654	CZ	TYR	D	280	94.894	13.206	140.834	1.00	23.31
ATOM	4655	OH	TYR	D	280	95.053	13.704	139.556	1.00	23.42
ATOM	4656	C	TYR	D	280	96.100	13.978	145.338	1.00	28.68
ATOM	4657	O	TYR	D	280	95.275	14.692	145.906	1.00	30.82
ATOM	4658	N	SER	D	281	96.992	14.462	144.493	1.00	28.17
ATOM	4659	CA	SER	D	281	96.984	15.870	144.171	1.00	28.04
ATOM	4660	CB	SER	D	281	97.625	16.709	145.275	1.00	28.85
ATOM	4661	OG	SER	D	281	97.563	18.093	144.954	1.00	27.99
ATOM	4662	C	SER	D	281	97.733	16.050	142.883	1.00	27.96
ATOM	4663	O	SER	D	281	98.740	15.372	142.645	1.00	26.52
ATOM	4664	N	ASP	D	282	97.211	16.942	142.040	1.00	28.40
ATOM	4665	CA	ASP	D	282	97.836	17.229	140.764	1.00	28.26
ATOM	4666	CB	ASP	D	282	96.869	18.031	139.871	1.00	26.72
ATOM	4667	CG	ASP	D	282	97.391	18.230	138.437	1.00	27.05
ATOM	4668	OD1	ASP	D	282	96.605	18.670	137.565	1.00	23.35
ATOM	4669	OD2	ASP	D	282	98.584	17.968	138.174	1.00	27.42
ATOM	4670	C	ASP	D	282	99.077	18.008	141.190	1.00	28.63
ATOM	4671	O	ASP	D	282	100.185	17.485	141.091	1.00	31.59
ATOM	4672	N	PRO	D	283	98.918	19.246	141.703	1.00	27.45
ATOM	4673	CD	PRO	D	283	97.721	20.080	141.912	1.00	27.15
ATOM	4674	CA	PRO	D	283	100.122	19.969	142.116	1.00	25.51

Table I

ATOM	4675	CB	PRO	D	283	99.612	21.377	142.350	1.00	22.95
ATOM	4676	CG	PRO	D	283	98.245	21.152	142.833	1.00	25.35
ATOM	4677	C	PRO	D	283	100.672	19.302	143.376	1.00	26.74
ATOM	4678	O	PRO	D	283	99.922	18.722	144.160	1.00	28.84
ATOM	4679	N	GLN	D	284	101.979	19.373	143.572	1.00	27.83
ATOM	4680	CA	GLN	D	284	102.595	18.719	144.719	1.00	27.59
ATOM	4681	CB	GLN	D	284	104.098	19.008	144.738	1.00	26.73
ATOM	4682	CG	GLN	D	284	104.824	18.393	143.540	1.00	26.87
ATOM	4683	CD	GLN	D	284	104.642	16.877	143.463	1.00	26.85
ATOM	4684	OE1	GLN	D	284	104.782	16.273	142.400	1.00	29.56
ATOM	4685	NE2	GLN	D	284	104.339	16.261	144.596	1.00	26.92
ATOM	4686	C	GLN	D	284	101.959	19.043	146.060	1.00	27.76
ATOM	4687	O	GLN	D	284	101.806	20.208	146.434	1.00	29.44
ATOM	4688	N	PRO	D	285	101.539	17.996	146.789	1.00	27.52
ATOM	4689	CD	PRO	D	285	101.201	16.657	146.273	1.00	26.12
ATOM	4690	CA	PRO	D	285	100.926	18.206	148.101	1.00	27.83
ATOM	4691	CB	PRO	D	285	99.948	17.034	148.196	1.00	26.21
ATOM	4692	CG	PRO	D	285	100.696	15.944	147.512	1.00	24.09
ATOM	4693	C	PRO	D	285	101.941	18.209	149.252	1.00	27.69
ATOM	4694	O	PRO	D	285	102.975	17.530	149.198	1.00	26.73
ATOM	4695	N	HIS	D	286	101.655	19.000	150.285	1.00	27.91
ATOM	4696	CA	HIS	D	286	102.515	19.025	151.450	1.00	25.77
ATOM	4697	CB	HIS	D	286	102.755	20.438	151.955	1.00	26.97
ATOM	4698	CG	HIS	D	286	103.809	20.511	153.016	1.00	27.05
ATOM	4699	CD2	HIS	D	286	104.943	19.792	153.190	1.00	27.21
ATOM	4700	ND1	HIS	D	286	103.740	21.386	154.080	1.00	25.97
ATOM	4701	CE1	HIS	D	286	104.784	21.196	154.867	1.00	27.93
ATOM	4702	NE2	HIS	D	286	105.529	20.234	154.350	1.00	27.84
ATOM	4703	C	HIS	D	286	101.779	18.234	152.510	1.00	25.23
ATOM	4704	O	HIS	D	286	100.719	18.645	152.981	1.00	24.71
ATOM	4705	N	ILE	D	287	102.342	17.087	152.867	1.00	26.15
ATOM	4706	CA	ILE	D	287	101.757	16.199	153.863	1.00	26.81
ATOM	4707	CB	ILE	D	287	101.949	14.728	153.477	1.00	26.82
ATOM	4708	CG2	ILE	D	287	101.300	13.824	154.520	1.00	27.34
ATOM	4709	CG1	ILE	D	287	101.340	14.471	152.107	1.00	24.98
ATOM	4710	CD1	ILE	D	287	101.328	13.043	151.747	1.00	24.48
ATOM	4711	C	ILE	D	287	102.391	16.395	155.231	1.00	28.63
ATOM	4712	O	ILE	D	287	103.556	16.788	155.341	1.00	29.59
ATOM	4713	N	GLN	D	288	101.624	16.101	156.276	1.00	28.82
ATOM	4714	CA	GLN	D	288	102.121	16.250	157.630	1.00	28.67
ATOM	4715	CB	GLN	D	288	102.031	17.712	158.048	1.00	30.80
ATOM	4716	CG	GLN	D	288	102.553	17.995	159.436	1.00	34.16
ATOM	4717	CD	GLN	D	288	102.568	19.475	159.726	1.00	36.29
ATOM	4718	OE1	GLN	D	288	103.584	20.032	160.156	1.00	36.96
ATOM	4719	NE2	GLN	D	288	101.435	20.128	159.486	1.00	36.39
ATOM	4720	C	GLN	D	288	101.305	15.395	158.578	1.00	27.72
ATOM	4721	O	GLN	D	288	100.116	15.190	158.357	1.00	27.73
ATOM	4722	N	TRP	D	289	101.946	14.884	159.624	1.00	26.18
ATOM	4723	CA	TRP	D	289	101.247	14.077	160.608	1.00	25.04
ATOM	4724	CB	TRP	D	289	101.924	12.728	160.796	1.00	26.06
ATOM	4725	CG	TRP	D	289	101.747	11.809	159.652	1.00	24.37
ATOM	4726	CD2	TRP	D	289	100.666	10.889	159.452	1.00	24.24
ATOM	4727	CE2	TRP	D	289	100.911	10.219	158.236	1.00	23.33
ATOM	4728	CE3	TRP	D	289	99.510	10.565	160.184	1.00	25.18
ATOM	4729	CD1	TRP	D	289	102.572	11.674	158.588	1.00	23.31

Table 1

ATOM	4730	NE1	TRP	D	289	102.083	10.720	157.731	1.00	24.91
ATOM	4731	CZ2	TRP	D	289	100.048	9.236	157.724	1.00	21.63
ATOM	4732	CZ3	TRP	D	289	98.642	9.578	159.672	1.00	24.77
ATOM	4733	CH2	TRP	D	289	98.925	8.930	158.452	1.00	22.51
ATOM	4734	C	TRP	D	289	101.202	14.802	161.940	1.00	25.00
ATOM	4735	O	TRP	D	289	102.193	15.374	162.373	1.00	26.08
ATOM	4736	N	LEU	D	290	100.042	14.762	162.586	1.00	25.25
ATOM	4737	CA	LEU	D	290	99.825	15.417	163.864	1.00	25.69
ATOM	4738	CB	LEU	D	290	98.788	16.514	163.722	1.00	25.43
ATOM	4739	CG	LEU	D	290	99.206	17.911	163.325	1.00	27.57
ATOM	4740	CD1	LEU	D	290	100.063	17.843	162.068	1.00	31.13
ATOM	4741	CD2	LEU	D	290	97.961	18.762	163.126	1.00	23.46
ATOM	4742	C	LEU	D	290	99.253	14.483	164.888	1.00	27.28
ATOM	4743	O	LEU	D	290	98.616	13.494	164.542	1.00	26.67
ATOM	4744	N	LYS	D	291	99.471	14.810	166.156	1.00	29.81
ATOM	4745	CA	LYS	D	291	98.848	14.057	167.233	1.00	32.14
ATOM	4746	CB	LYS	D	291	99.833	13.316	168.120	1.00	31.84
ATOM	4747	CG	LYS	D	291	99.077	12.575	169.210	1.00	33.10
ATOM	4748	CD	LYS	D	291	99.986	11.827	170.140	1.00	37.57
ATOM	4749	CE	LYS	D	291	99.193	11.164	171.249	1.00	37.27
ATOM	4750	NZ	LYS	D	291	100.141	10.473	172.162	1.00	38.20
ATOM	4751	C	LYS	D	291	98.120	15.096	168.072	1.00	33.93
ATOM	4752	O	LYS	D	291	98.684	16.153	168.387	1.00	33.14
ATOM	4753	N	HIS	D	292	96.866	14.804	168.413	1.00	35.56
ATOM	4754	CA	HIS	D	292	96.052	15.716	169.205	1.00	36.77
ATOM	4755	CB	HIS	D	292	94.576	15.433	168.953	1.00	37.96
ATOM	4756	CG	HIS	D	292	94.136	15.760	167.563	1.00	40.80
ATOM	4757	CD2	HIS	D	292	93.785	14.962	166.526	1.00	42.12
ATOM	4758	ND1	HIS	D	292	94.037	17.054	167.101	1.00	40.67
ATOM	4759	CE1	HIS	D	292	93.641	17.040	165.840	1.00	41.85
ATOM	4760	NE2	HIS	D	292	93.481	15.783	165.466	1.00	42.65
ATOM	4761	C	HIS	D	292	96.358	15.581	170.687	1.00	37.14
ATOM	4762	O	HIS	D	292	96.298	14.484	171.239	1.00	38.92
ATOM	4763	N	VAL	D	308	98.284	20.414	169.346	1.00	33.09
ATOM	4764	CA	VAL	D	308	98.821	19.295	168.570	1.00	33.71
ATOM	4765	CB	VAL	D	308	98.490	19.448	167.064	1.00	32.52
ATOM	4766	CG1	VAL	D	308	97.010	19.502	166.862	1.00	29.95
ATOM	4767	CG2	VAL	D	308	99.155	20.697	166.515	1.00	31.27
ATOM	4768	C	VAL	D	308	100.343	19.119	168.681	1.00	32.88
ATOM	4769	O	VAL	D	308	101.059	19.964	169.223	1.00	32.12
ATOM	4770	N	GLN	D	309	100.818	17.997	168.160	1.00	31.80
ATOM	4771	CA	GLN	D	309	102.234	17.703	168.150	1.00	30.85
ATOM	4772	CB	GLN	D	309	102.562	16.577	169.115	1.00	30.07
ATOM	4773	CG	GLN	D	309	103.829	15.882	168.709	1.00	32.83
ATOM	4774	CD	GLN	D	309	104.309	14.897	169.724	1.00	33.49
ATOM	4775	OE1	GLN	D	309	103.538	14.072	170.224	1.00	35.52
ATOM	4776	NE2	GLN	D	309	105.600	14.959	170.035	1.00	33.76
ATOM	4777	C	GLN	D	309	102.588	17.281	166.733	1.00	29.45
ATOM	4778	O	GLN	D	309	102.072	16.274	166.225	1.00	29.22
ATOM	4779	N	ILE	D	310	103.451	18.059	166.089	1.00	27.57
ATOM	4780	CA	ILE	D	310	103.862	17.752	164.721	1.00	25.83
ATOM	4781	CB	ILE	D	310	104.536	18.961	164.062	1.00	21.88
ATOM	4782	CG2	ILE	D	310	104.713	18.710	162.584	1.00	21.49
ATOM	4783	CG1	ILE	D	310	103.657	20.191	164.252	1.00	18.95
ATOM	4784	CD1	ILE	D	310	102.170	19.948	163.940	1.00	17.06

Table I

ATOM	4785	C	ILE	D	310	104.805	16.563	164.740	1.00	24.75
ATOM	4786	O	ILE	D	310	105.919	16.654	165.236	1.00	25.81
ATOM	4787	N	LEU	D	311	104.342	15.442	164.207	1.00	23.85
ATOM	4788	CA	LEU	D	311	105.126	14.218	164.203	1.00	25.83
ATOM	4789	CB	LEU	D	311	104.192	13.019	164.353	1.00	25.27
ATOM	4790	CG	LEU	D	311	103.223	13.077	165.532	1.00	26.41
ATOM	4791	CD1	LEU	D	311	102.098	12.051	165.348	1.00	21.64
ATOM	4792	CD2	LEU	D	311	104.015	12.860	166.820	1.00	24.12
ATOM	4793	C	LEU	D	311	105.979	14.015	162.955	1.00	26.90
ATOM	4794	O	LEU	D	311	107.079	13.462	163.031	1.00	28.62
ATOM	4795	N	LYS	D	312	105.470	14.456	161.811	1.00	26.26
ATOM	4796	CA	LYS	D	312	106.174	14.270	160.558	1.00	26.36
ATOM	4797	CB	LYS	D	312	105.816	12.895	159.985	1.00	27.03
ATOM	4798	CG	LYS	D	312	106.793	12.339	158.963	1.00	26.95
ATOM	4799	CD	LYS	D	312	106.526	10.860	158.710	1.00	27.20
ATOM	4800	CE	LYS	D	312	107.679	10.201	157.954	1.00	27.96
ATOM	4801	NZ	LYS	D	312	107.554	8.713	157.955	1.00	26.09
ATOM	4802	C	LYS	D	312	105.751	15.358	159.596	1.00	26.99
ATOM	4803	O	LYS	D	312	104.595	15.780	159.596	1.00	26.20
ATOM	4804	N	THR	D	313	106.693	15.828	158.787	1.00	28.01
ATOM	4805	CA	THR	D	313	106.385	16.861	157.820	1.00	28.06
ATOM	4806	CB	THR	D	313	106.595	18.263	158.393	1.00	27.10
ATOM	4807	OG1	THR	D	313	105.828	18.406	159.597	1.00	25.05
ATOM	4808	CG2	THR	D	313	106.123	19.309	157.387	1.00	26.17
ATOM	4809	C	THR	D	313	107.246	16.677	156.592	1.00	29.26
ATOM	4810	O	THR	D	313	108.471	16.581	156.683	1.00	31.13
ATOM	4811	N	ALA	D	314	106.584	16.607	155.442	1.00	29.36
ATOM	4812	CA	ALA	D	314	107.257	16.420	154.166	1.00	29.34
ATOM	4813	CB	ALA	D	314	106.237	16.281	153.058	1.00	27.47
ATOM	4814	C	ALA	D	314	108.204	17.562	153.842	1.00	30.36
ATOM	4815	O	ALA	D	314	107.974	18.712	154.228	1.00	30.60
ATOM	4816	N	GLY	D	315	109.264	17.227	153.116	1.00	29.90
ATOM	4817	CA	GLY	D	315	110.252	18.211	152.727	1.00	29.95
ATOM	4818	C	GLY	D	315	111.524	17.495	152.343	1.00	30.80
ATOM	4819	O	GLY	D	315	111.577	16.265	152.353	1.00	31.54
ATOM	4820	N	VAL	D	316	112.555	18.254	152.004	1.00	30.69
ATOM	4821	CA	VAL	D	316	113.817	17.654	151.619	1.00	31.98
ATOM	4822	CB	VAL	D	316	114.869	18.739	151.357	1.00	32.20
ATOM	4823	CG1	VAL	D	316	116.252	18.117	151.272	1.00	34.99
ATOM	4824	CG2	VAL	D	316	114.548	19.455	150.058	1.00	33.78
ATOM	4825	C	VAL	D	316	114.355	16.654	152.655	1.00	32.59
ATOM	4826	O	VAL	D	316	115.014	15.681	152.301	1.00	33.55
ATOM	4827	N	ASN	D	317	114.071	16.891	153.929	1.00	32.95
ATOM	4828	CA	ASN	D	317	114.538	16.009	154.998	1.00	34.22
ATOM	4829	CB	ASN	D	317	114.477	16.711	156.355	1.00	34.35
ATOM	4830	CG	ASN	D	317	115.607	17.680	156.570	1.00	34.02
ATOM	4831	OD1	ASN	D	317	115.668	18.340	157.608	1.00	34.37
ATOM	4832	ND2	ASN	D	317	116.512	17.776	155.596	1.00	33.35
ATOM	4833	C	ASN	D	317	113.706	14.748	155.118	1.00	35.11
ATOM	4834	O	ASN	D	317	114.151	13.737	155.658	1.00	34.96
ATOM	4835	N	THR	D	318	112.476	14.815	154.647	1.00	36.25
ATOM	4836	CA	THR	D	318	111.599	13.670	154.729	1.00	35.45
ATOM	4837	CB	THR	D	318	110.737	13.758	155.994	1.00	35.52
ATOM	4838	OG1	THR	D	318	111.563	13.517	157.140	1.00	33.24
ATOM	4839	CG2	THR	D	318	109.633	12.743	155.963	1.00	36.91

Table 1

ATOM	4840	C	THR	D	318	110.760	13.645	153.474	1.00	36.75
ATOM	4841	O	THR	D	318	109.685	14.233	153.403	1.00	38.77
ATOM	4842	N	THR	D	319	111.309	12.970	152.473	1.00	37.80
ATOM	4843	CA	THR	D	319	110.718	12.809	151.152	1.00	37.38
ATOM	4844	CB	THR	D	319	111.661	11.962	150.294	1.00	37.90
ATOM	4845	OG1	THR	D	319	112.838	12.723	150.042	1.00	39.64
ATOM	4846	CG2	THR	D	319	111.020	11.559	148.967	1.00	41.12
ATOM	4847	C	THR	D	319	109.347	12.154	151.164	1.00	36.69
ATOM	4848	O	THR	D	319	109.022	11.402	152.086	1.00	36.67
ATOM	4849	N	ASP	D	320	108.554	12.436	150.128	1.00	36.46
ATOM	4850	CA	ASP	D	320	107.216	11.859	149.997	1.00	35.83
ATOM	4851	CB	ASP	D	320	106.624	12.117	148.610	1.00	33.91
ATOM	4852	CG	ASP	D	320	106.286	13.570	148.373	1.00	34.35
ATOM	4853	OD1	ASP	D	320	105.917	14.262	149.346	1.00	32.14
ATOM	4854	OD2	ASP	D	320	106.374	14.015	147.205	1.00	34.66
ATOM	4855	C	ASP	D	320	107.271	10.359	150.206	1.00	35.84
ATOM	4856	O	ASP	D	320	106.323	9.759	150.695	1.00	36.05
ATOM	4857	N	LYS	D	321	108.385	9.752	149.821	1.00	37.45
ATOM	4858	CA	LYS	D	321	108.548	8.314	149.966	1.00	37.85
ATOM	4859	CB	LYS	D	321	110.014	7.931	149.794	1.00	39.71
ATOM	4860	CG	LYS	D	321	110.605	8.440	148.502	1.00	43.24
ATOM	4861	CD	LYS	D	321	112.123	8.263	148.471	1.00	47.56
ATOM	4862	CE	LYS	D	321	112.737	8.967	147.246	1.00	49.40
ATOM	4863	NZ	LYS	D	321	114.185	8.668	147.052	1.00	48.66
ATOM	4864	C	LYS	D	321	108.045	7.841	151.320	1.00	37.80
ATOM	4865	O	LYS	D	321	107.177	6.982	151.395	1.00	39.63
ATOM	4866	N	GLU	D	322	108.560	8.428	152.391	1.00	36.93
ATOM	4867	CA	GLU	D	322	108.173	8.021	153.732	1.00	36.01
ATOM	4868	CB	GLU	D	322	109.381	8.179	154.649	1.00	34.63
ATOM	4869	CG	GLU	D	322	109.979	9.585	154.627	1.00	32.89
ATOM	4870	CD	GLU	D	322	111.343	9.678	155.330	1.00	32.55
ATOM	4871	OE1	GLU	D	322	111.467	9.187	156.479	1.00	28.33
ATOM	4872	OE2	GLU	D	322	112.288	10.253	154.730	1.00	30.74
ATOM	4873	C	GLU	D	322	106.983	8.747	154.345	1.00	36.20
ATOM	4874	O	GLU	D	322	106.546	8.393	155.433	1.00	36.13
ATOM	4875	N	MET	D	323	106.446	9.744	153.653	1.00	36.12
ATOM	4876	CA	MET	D	323	105.341	10.529	154.195	1.00	36.16
ATOM	4877	CB	MET	D	323	105.272	11.881	153.479	1.00	36.94
ATOM	4878	CG	MET	D	323	106.389	12.840	153.876	1.00	36.64
ATOM	4879	SD	MET	D	323	106.595	12.886	155.676	1.00	34.99
ATOM	4880	CE	MET	D	323	104.933	13.398	156.200	1.00	37.06
ATOM	4881	C	MET	D	323	103.940	9.935	154.259	1.00	36.22
ATOM	4882	O	MET	D	323	103.088	10.474	154.954	1.00	35.07
ATOM	4883	N	GLU	D	324	103.688	8.836	153.556	1.00	37.83
ATOM	4884	CA	GLU	D	324	102.352	8.250	153.574	1.00	37.78
ATOM	4885	CB	GLU	D	324	102.023	7.635	152.208	1.00	39.20
ATOM	4886	CG	GLU	D	324	101.867	8.691	151.115	1.00	45.52
ATOM	4887	CD	GLU	D	324	101.254	8.153	149.821	1.00	48.59
ATOM	4888	OE1	GLU	D	324	101.736	7.109	149.325	1.00	52.60
ATOM	4889	OE2	GLU	D	324	100.304	8.779	149.290	1.00	46.67
ATOM	4890	C	GLU	D	324	102.093	7.248	154.699	1.00	36.24
ATOM	4891	O	GLU	D	324	100.972	6.767	154.873	1.00	36.10
ATOM	4892	N	VAL	D	325	103.115	6.953	155.484	1.00	34.34
ATOM	4893	CA	VAL	D	325	102.945	6.021	156.582	1.00	35.57
ATOM	4894	CB	VAL	D	325	103.579	4.653	156.249	1.00	34.18

Table 1

ATOM	4895	CG1	VAL	D	325	105.095	4.781	156.198	1.00	32.54
ATOM	4896	CG2	VAL	D	325	103.167	3.625	157.282	1.00	32.08
ATOM	4897	C	VAL	D	325	103.570	6.550	157.878	1.00	36.78
ATOM	4898	O	VAL	D	325	104.755	6.887	157.916	1.00	36.54
ATOM	4899	N	LEU	D	326	102.764	6.631	158.935	1.00	37.89
ATOM	4900	CA	LEU	D	326	103.243	7.097	160.235	1.00	38.72
ATOM	4901	CB	LEU	D	326	102.184	7.958	160.919	1.00	38.44
ATOM	4902	CG	LEU	D	326	102.598	8.517	162.283	1.00	38.99
ATOM	4903	CD1	LEU	D	326	103.837	9.373	162.117	1.00	37.38
ATOM	4904	CD2	LEU	D	326	101.465	9.344	162.883	1.00	38.01
ATOM	4905	C	LEU	D	326	103.564	5.890	161.114	1.00	39.59
ATOM	4906	O	LEU	D	326	102.700	5.069	161.401	1.00	38.62
ATOM	4907	N	HIS	D	327	104.814	5.794	161.540	1.00	41.75
ATOM	4908	CA	HIS	D	327	105.257	4.679	162.355	1.00	43.79
ATOM	4909	CB	HIS	D	327	106.648	4.249	161.914	1.00	46.71
ATOM	4910	CG	HIS	D	327	106.674	3.598	160.574	1.00	49.33
ATOM	4911	CD2	HIS	D	327	107.068	4.062	159.365	1.00	50.34
ATOM	4912	ND1	HIS	D	327	106.215	2.314	160.367	1.00	49.92
ATOM	4913	CE1	HIS	D	327	106.324	2.015	159.085	1.00	51.65
ATOM	4914	NE2	HIS	D	327	106.839	3.058	158.456	1.00	52.95
ATOM	4915	C	HIS	D	327	105.302	4.981	163.830	1.00	44.31
ATOM	4916	O	HIS	D	327	105.916	5.955	164.254	1.00	44.81
ATOM	4917	N	LEU	D	328	104.654	4.142	164.618	1.00	45.14
ATOM	4918	CA	LEU	D	328	104.688	4.322	166.055	1.00	47.78
ATOM	4919	CB	LEU	D	328	103.278	4.587	166.603	1.00	46.33
ATOM	4920	CG	LEU	D	328	102.642	5.872	166.044	1.00	43.57
ATOM	4921	CD1	LEU	D	328	101.380	6.232	166.811	1.00	42.21
ATOM	4922	CD2	LEU	D	328	103.631	7.000	166.136	1.00	39.43
ATOM	4923	C	LEU	D	328	105.310	3.046	166.615	1.00	50.07
ATOM	4924	O	LEU	D	328	104.682	1.987	166.642	1.00	51.11
ATOM	4925	N	ARG	D	329	106.571	3.164	167.022	1.00	52.33
ATOM	4926	CA	ARG	D	329	107.351	2.051	167.558	1.00	54.65
ATOM	4927	CB	ARG	D	329	108.842	2.324	167.336	1.00	54.25
ATOM	4928	C	ARG	D	329	107.095	1.820	169.043	1.00	56.39
ATOM	4929	O	ARG	D	329	107.316	2.716	169.857	1.00	57.26
ATOM	4930	N	ASN	D	330	106.649	0.612	169.389	1.00	58.57
ATOM	4931	CA	ASN	D	330	106.338	0.250	170.774	1.00	60.39
ATOM	4932	CB	ASN	D	330	107.607	-0.066	171.560	1.00	63.16
ATOM	4933	CG	ASN	D	330	107.328	-0.299	173.031	1.00	65.73
ATOM	4934	OD1	ASN	D	330	107.248	0.648	173.819	1.00	66.78
ATOM	4935	ND2	ASN	D	330	107.155	-1.562	173.406	1.00	67.36
ATOM	4936	C	ASN	D	330	105.565	1.355	171.477	1.00	60.09
ATOM	4937	O	ASN	D	330	106.147	2.282	172.041	1.00	60.19
ATOM	4938	N	VAL	D	331	104.244	1.244	171.450	1.00	59.65
ATOM	4939	CA	VAL	D	331	103.397	2.257	172.053	1.00	59.89
ATOM	4940	CB	VAL	D	331	101.979	2.227	171.431	1.00	58.63
ATOM	4941	CG1	VAL	D	331	102.057	2.593	169.967	1.00	57.29
ATOM	4942	CG2	VAL	D	331	101.370	0.851	171.580	1.00	57.94
ATOM	4943	C	VAL	D	331	103.288	2.155	173.565	1.00	60.47
ATOM	4944	O	VAL	D	331	103.862	1.267	174.187	1.00	61.22
ATOM	4945	N	SER	D	332	102.548	3.092	174.144	1.00	61.44
ATOM	4946	CA	SER	D	332	102.321	3.156	175.583	1.00	62.61
ATOM	4947	CB	SER	D	332	103.424	3.969	176.269	1.00	62.34
ATOM	4948	OG	SER	D	332	103.348	5.346	175.927	1.00	60.01
ATOM	4949	C	SER	D	332	100.992	3.868	175.766	1.00	63.67

Table 1

ATOM	4950	O	SER	D	332	100.512	4.522	174.845	1.00	64.37
ATOM	4951	N	PHE	D	333	100.397	3.754	176.946	1.00	64.59
ATOM	4952	CA	PHE	D	333	99.122	4.413	177.199	1.00	65.42
ATOM	4953	CB	PHE	D	333	98.744	4.276	178.676	1.00	68.43
ATOM	4954	CG	PHE	D	333	98.278	2.896	179.054	1.00	72.42
ATOM	4955	CD1	PHE	D	333	98.169	2.526	180.391	1.00	73.24
ATOM	4956	CD2	PHE	D	333	97.933	1.966	178.069	1.00	74.01
ATOM	4957	CE1	PHE	D	333	97.725	1.252	180.745	1.00	73.82
ATOM	4958	CE2	PHE	D	333	97.488	0.691	178.413	1.00	74.79
ATOM	4959	CZ	PHE	D	333	97.384	0.334	179.754	1.00	74.53
ATOM	4960	C	PHE	D	333	99.180	5.882	176.809	1.00	64.25
ATOM	4961	O	PHE	D	333	98.161	6.494	176.488	1.00	63.25
ATOM	4962	N	GLU	D	334	100.386	6.436	176.830	1.00	63.41
ATOM	4963	CA	GLU	D	334	100.591	7.835	176.486	1.00	62.79
ATOM	4964	CB	GLU	D	334	102.032	8.235	176.794	1.00	65.85
ATOM	4965	CG	GLU	D	334	102.503	7.874	178.195	1.00	69.95
ATOM	4966	CD	GLU	D	334	104.013	8.031	178.345	1.00	73.26
ATOM	4967	OE1	GLU	D	334	104.540	7.773	179.457	1.00	73.50
ATOM	4968	OE2	GLU	D	334	104.669	8.410	177.342	1.00	73.62
ATOM	4969	C	GLU	D	334	100.293	8.067	175.002	1.00	59.92
ATOM	4970	O	GLU	D	334	99.578	9.003	174.643	1.00	59.28
ATOM	4971	N	ASP	D	335	100.839	7.198	174.154	1.00	55.93
ATOM	4972	CA	ASP	D	335	100.669	7.287	172.712	1.00	51.63
ATOM	4973	CB	ASP	D	335	101.515	6.217	172.037	1.00	49.63
ATOM	4974	CG	ASP	D	335	102.974	6.327	172.406	1.00	48.72
ATOM	4975	OD1	ASP	D	335	103.514	7.444	172.311	1.00	46.64
ATOM	4976	OD2	ASP	D	335	103.584	5.303	172.790	1.00	50.29
ATOM	4977	C	ASP	D	335	99.224	7.183	172.239	1.00	50.20
ATOM	4978	O	ASP	D	335	98.923	7.478	171.079	1.00	50.69
ATOM	4979	N	ALA	D	336	98.327	6.764	173.123	1.00	47.17
ATOM	4980	CA	ALA	D	336	96.924	6.659	172.750	1.00	44.10
ATOM	4981	CB	ALA	D	336	96.119	6.160	173.923	1.00	44.65
ATOM	4982	C	ALA	D	336	96.448	8.050	172.331	1.00	42.08
ATOM	4983	O	ALA	D	336	97.047	9.059	172.709	1.00	42.12
ATOM	4984	N	GLY	D	337	95.384	8.113	171.544	1.00	39.09
ATOM	4985	CA	GLY	D	337	94.900	9.406	171.116	1.00	36.28
ATOM	4986	C	GLY	D	337	94.650	9.494	169.627	1.00	35.30
ATOM	4987	O	GLY	D	337	94.873	8.550	168.874	1.00	37.23
ATOM	4988	N	GLU	D	338	94.199	10.661	169.203	1.00	34.06
ATOM	4989	CA	GLU	D	338	93.864	10.928	167.819	1.00	31.79
ATOM	4990	CB	GLU	D	338	92.743	11.964	167.823	1.00	32.76
ATOM	4991	CG	GLU	D	338	92.136	12.358	166.515	1.00	35.47
ATOM	4992	CD	GLU	D	338	90.919	13.237	166.746	1.00	38.92
ATOM	4993	OE1	GLU	D	338	90.910	13.990	167.750	1.00	40.52
ATOM	4994	OE2	GLU	D	338	89.972	13.183	165.937	1.00	40.80
ATOM	4995	C	GLU	D	338	95.058	11.401	166.987	1.00	30.61
ATOM	4996	O	GLU	D	338	95.751	12.362	167.336	1.00	28.27
ATOM	4997	N	TYR	D	339	95.301	10.701	165.886	1.00	29.87
ATOM	4998	CA	TYR	D	339	96.388	11.062	164.989	1.00	30.24
ATOM	4999	CB	TYR	D	339	97.305	9.865	164.711	1.00	30.60
ATOM	5000	CG	TYR	D	339	98.156	9.495	165.893	1.00	31.84
ATOM	5001	CD1	TYR	D	339	97.613	8.807	166.984	1.00	33.22
ATOM	5002	CE1	TYR	D	339	98.365	8.561	168.127	1.00	35.77
ATOM	5003	CD2	TYR	D	339	99.478	9.917	165.970	1.00	33.47
ATOM	5004	CE2	TYR	D	339	100.242	9.683	167.104	1.00	36.30

Table 1

ATOM	5005	CZ	TYR	D	339	99.683	9.009	168.182	1.00	38.40
ATOM	5006	OH	TYR	D	339	100.439	8.829	169.323	1.00	41.10
ATOM	5007	C	TYR	D	339	95.747	11.557	163.711	1.00	29.89
ATOM	5008	O	TYR	D	339	94.753	10.998	163.249	1.00	28.60
ATOM	5009	N	THR	D	340	96.316	12.613	163.143	1.00	30.27
ATOM	5010	CA	THR	D	340	95.757	13.196	161.942	1.00	29.19
ATOM	5011	CB	THR	D	340	95.164	14.567	162.269	1.00	28.40
ATOM	5012	OG1	THR	D	340	94.249	14.418	163.357	1.00	28.64
ATOM	5013	CG2	THR	D	340	94.430	15.146	161.075	1.00	27.74
ATOM	5014	C	THR	D	340	96.747	13.328	160.799	1.00	29.78
ATOM	5015	O	THR	D	340	97.928	13.616	161.002	1.00	29.63
ATOM	5016	N	CYS	D	341	96.244	13.098	159.592	1.00	29.75
ATOM	5017	CA	CYS	D	341	97.052	13.222	158.397	1.00	31.36
ATOM	5018	C	CYS	D	341	96.573	14.424	157.580	1.00	30.34
ATOM	5019	O	CYS	D	341	95.439	14.427	157.095	1.00	31.13
ATOM	5020	CB	CYS	D	341	96.953	11.954	157.561	1.00	33.83
ATOM	5021	SG	CYS	D	341	97.798	12.118	155.958	1.00	38.30
ATOM	5022	N	LEU	D	342	97.429	15.440	157.443	1.00	28.14
ATOM	5023	CA	LEU	D	342	97.084	16.632	156.680	1.00	25.64
ATOM	5024	CB	LEU	D	342	97.421	17.909	157.433	1.00	29.80
ATOM	5025	CG	LEU	D	342	96.974	18.193	158.862	1.00	34.80
ATOM	5026	CD1	LEU	D	342	96.751	19.704	158.943	1.00	34.66
ATOM	5027	CD2	LEU	D	342	95.703	17.435	159.246	1.00	33.53
ATOM	5028	C	LEU	D	342	97.828	16.702	155.370	1.00	24.11
ATOM	5029	O	LEU	D	342	99.010	16.345	155.288	1.00	22.00
ATOM	5030	N	ALA	D	343	97.130	17.193	154.352	1.00	21.64
ATOM	5031	CA	ALA	D	343	97.711	17.364	153.031	1.00	20.61
ATOM	5032	CB	ALA	D	343	97.465	16.147	152.182	1.00	21.72
ATOM	5033	C	ALA	D	343	97.112	18.592	152.372	1.00	20.26
ATOM	5034	O	ALA	D	343	95.900	18.779	152.364	1.00	20.13
ATOM	5035	N	GLY	D	344	97.970	19.440	151.827	1.00	21.09
ATOM	5036	CA	GLY	D	344	97.473	20.634	151.181	1.00	22.38
ATOM	5037	C	GLY	D	344	98.345	21.160	150.060	1.00	23.80
ATOM	5038	O	GLY	D	344	99.540	20.857	149.971	1.00	23.92
ATOM	5039	N	ASN	D	345	97.720	21.919	149.167	1.00	23.54
ATOM	5040	CA	ASN	D	345	98.439	22.546	148.082	1.00	21.83
ATOM	5041	CB	ASN	D	345	98.150	21.895	146.733	1.00	21.01
ATOM	5042	CG	ASN	D	345	96.679	21.689	146.476	1.00	24.41
ATOM	5043	OD1	ASN	D	345	95.861	22.605	146.636	1.00	26.37
ATOM	5044	ND2	ASN	D	345	96.331	20.482	146.038	1.00	20.51
ATOM	5045	C	ASN	D	345	98.001	23.984	148.101	1.00	22.08
ATOM	5046	O	ASN	D	345	97.356	24.430	149.046	1.00	19.30
ATOM	5047	N	SER	D	346	98.356	24.727	147.075	1.00	24.23
ATOM	5048	CA	SER	D	346	97.991	26.123	147.061	1.00	27.91
ATOM	5049	CB	SER	D	346	98.779	26.857	145.969	1.00	30.80
ATOM	5050	OG	SER	D	346	98.859	26.091	144.773	1.00	37.69
ATOM	5051	C	SER	D	346	96.491	26.314	146.894	1.00	28.82
ATOM	5052	O	SER	D	346	95.952	27.355	147.250	1.00	29.53
ATOM	5053	N	ILE	D	347	95.806	25.299	146.381	1.00	30.08
ATOM	5054	CA	ILE	D	347	94.371	25.416	146.190	1.00	28.98
ATOM	5055	CB	ILE	D	347	93.870	24.403	145.169	1.00	26.99
ATOM	5056	CG2	ILE	D	347	92.394	24.583	144.965	1.00	22.50
ATOM	5057	CG1	ILE	D	347	94.606	24.621	143.851	1.00	26.44
ATOM	5058	CD1	ILE	D	347	94.363	23.584	142.795	1.00	30.48
ATOM	5059	C	ILE	D	347	93.607	25.266	147.496	1.00	29.91

Table F

ATOM	5060	O	ILE	D	347	92.719	26.058	147.788	1.00	32.67
ATOM	5061	N	GLY	D	348	93.950	24.273	148.301	1.00	28.95
ATOM	5062	CA	GLY	D	348	93.239	24.114	149.554	1.00	30.13
ATOM	5063	C	GLY	D	348	93.890	23.115	150.483	1.00	30.97
ATOM	5064	O	GLY	D	348	95.017	22.680	150.241	1.00	31.52
ATOM	5065	N	LEU	D	349	93.179	22.749	151.545	1.00	30.91
ATOM	5066	CA	LEU	D	349	93.697	21.789	152.513	1.00	31.11
ATOM	5067	CB	LEU	D	349	94.104	22.517	153.796	1.00	31.40
ATOM	5068	CG	LEU	D	349	94.819	21.653	154.841	1.00	33.44
ATOM	5069	CD1	LEU	D	349	96.170	21.198	154.305	1.00	31.52
ATOM	5070	CD2	LEU	D	349	94.989	22.451	156.124	1.00	33.38
ATOM	5071	C	LEU	D	349	92.730	20.634	152.849	1.00	30.31
ATOM	5072	O	LEU	D	349	91.506	20.791	152.828	1.00	29.25
ATOM	5073	N	SER	D	350	93.297	19.470	153.151	1.00	29.32
ATOM	5074	CA	SER	D	350	92.513	18.290	153.495	1.00	29.59
ATOM	5075	CB	SER	D	350	92.461	17.312	152.325	1.00	28.63
ATOM	5076	OG	SER	D	350	91.629	17.795	151.287	1.00	32.28
ATOM	5077	C	SER	D	350	93.176	17.604	154.664	1.00	30.54
ATOM	5078	O	SER	D	350	94.345	17.856	154.943	1.00	30.95
ATOM	5079	N	HIS	D	351	92.430	16.740	155.346	1.00	31.83
ATOM	5080	CA	HIS	D	351	92.967	15.996	156.479	1.00	32.23
ATOM	5081	CB	HIS	D	351	93.269	16.930	157.642	1.00	35.19
ATOM	5082	CG	HIS	D	351	92.048	17.560	158.228	1.00	39.93
ATOM	5083	CD2	HIS	D	351	91.287	17.204	159.290	1.00	40.95
ATOM	5084	ND1	HIS	D	351	91.417	18.640	157.648	1.00	40.27
ATOM	5085	CE1	HIS	D	351	90.319	18.919	158.326	1.00	41.63
ATOM	5086	NE2	HIS	D	351	90.217	18.061	159.326	1.00	41.54
ATOM	5087	C	HIS	D	351	91.985	14.941	156.962	1.00	31.71
ATOM	5088	O	HIS	D	351	90.783	15.184	156.998	1.00	31.07
ATOM	5089	N	HIS	D	352	92.513	13.770	157.317	1.00	31.75
ATOM	5090	CA	HIS	D	352	91.722	12.661	157.851	1.00	30.61
ATOM	5091	CB	HIS	D	352	91.844	11.392	156.999	1.00	30.06
ATOM	5092	CG	HIS	D	352	91.018	11.396	155.750	1.00	30.96
ATOM	5093	CD2	HIS	D	352	90.243	12.353	155.187	1.00	32.11
ATOM	5094	ND1	HIS	D	352	90.957	10.310	154.901	1.00	30.90
ATOM	5095	CE1	HIS	D	352	90.183	10.599	153.871	1.00	30.38
ATOM	5096	NE2	HIS	D	352	89.737	11.833	154.019	1.00	30.27
ATOM	5097	C	HIS	D	352	92.323	12.357	159.216	1.00	31.42
ATOM	5098	O	HIS	D	352	93.540	12.467	159.400	1.00	31.56
ATOM	5099	N	SER	D	353	91.484	11.967	160.168	1.00	31.10
ATOM	5100	CA	SER	D	353	91.966	11.652	161.502	1.00	31.28
ATOM	5101	CB	SER	D	353	91.305	12.575	162.521	1.00	31.16
ATOM	5102	OG	SER	D	353	91.417	13.927	162.115	1.00	32.98
ATOM	5103	C	SER	D	353	91.639	10.211	161.839	1.00	31.23
ATOM	5104	O	SER	D	353	90.733	9.630	161.257	1.00	33.53
ATOM	5105	N	ALA	D	354	92.390	9.634	162.769	1.00	31.01
ATOM	5106	CA	ALA	D	354	92.170	8.262	163.203	1.00	30.47
ATOM	5107	CB	ALA	D	354	93.095	7.313	162.466	1.00	28.96
ATOM	5108	C	ALA	D	354	92.435	8.197	164.696	1.00	31.37
ATOM	5109	O	ALA	D	354	93.118	9.058	165.260	1.00	29.49
ATOM	5110	N	TRP	D	355	91.901	7.167	165.337	1.00	33.61
ATOM	5111	CA	TRP	D	355	92.080	7.025	166.765	1.00	34.51
ATOM	5112	CB	TRP	D	355	90.720	6.974	167.453	1.00	36.20
ATOM	5113	CG	TRP	D	355	90.724	7.824	168.658	1.00	42.37
ATOM	5114	CD2	TRP	D	355	90.095	9.102	168.793	1.00	44.32

Table 1

ATOM	5115	CE2	TRP	D	355	90.483	9.626	170.055	1.00	44.27
ATOM	5116	CE3	TRP	D	355	89.247	9.858	167.972	1.00	43.24
ATOM	5117	CD1	TRP	D	355	91.439	7.619	169.815	1.00	44.23
ATOM	5118	NE1	TRP	D	355	91.300	8.704	170.656	1.00	45.49
ATOM	5119	CZ2	TRP	D	355	90.049	10.871	170.505	1.00	43.28
ATOM	5120	CZ3	TRP	D	355	88.818	11.093	168.423	1.00	43.34
ATOM	5121	CH2	TRP	D	355	89.221	11.589	169.679	1.00	43.92
ATOM	5122	C	TRP	D	355	92.887	5.812	167.178	1.00	33.47
ATOM	5123	O	TRP	D	355	92.590	4.693	166.765	1.00	33.00
ATOM	5124	N	LEU	D	356	93.908	6.044	167.998	1.00	32.81
ATOM	5125	CA	LEU	D	356	94.728	4.955	168.515	1.00	33.21
ATOM	5126	CB	LEU	D	356	96.194	5.347	168.594	1.00	34.73
ATOM	5127	CG	LEU	D	356	97.143	4.144	168.566	1.00	35.38
ATOM	5128	CD1	LEU	D	356	98.543	4.609	168.923	1.00	35.96
ATOM	5129	CD2	LEU	D	356	96.680	3.065	169.521	1.00	35.85
ATOM	5130	C	LEU	D	356	94.263	4.609	169.925	1.00	33.74
ATOM	5131	O	LEU	D	356	94.379	5.412	170.847	1.00	32.37
ATOM	5132	N	THR	D	357	93.735	3.404	170.081	1.00	35.42
ATOM	5133	CA	THR	D	357	93.265	2.931	171.375	1.00	37.14
ATOM	5134	CB	THR	D	357	91.875	2.264	171.250	1.00	37.60
ATOM	5135	OG1	THR	D	357	90.965	3.173	170.610	1.00	36.16
ATOM	5136	CG2	THR	D	357	91.342	1.876	172.632	1.00	34.23
ATOM	5137	C	THR	D	357	94.269	1.898	171.870	1.00	37.63
ATOM	5138	O	THR	D	357	94.509	0.900	171.196	1.00	38.36
ATOM	5139	N	VAL	D	358	94.857	2.138	173.039	1.00	38.60
ATOM	5140	CA	VAL	D	358	95.849	1.218	173.602	1.00	40.52
ATOM	5141	CB	VAL	D	358	97.132	1.996	174.025	1.00	40.83
ATOM	5142	CG1	VAL	D	358	98.160	1.048	174.606	1.00	40.51
ATOM	5143	CG2	VAL	D	358	97.708	2.739	172.828	1.00	39.34
ATOM	5144	C	VAL	D	358	95.308	0.444	174.814	1.00	40.94
ATOM	5145	O	VAL	D	358	94.574	0.998	175.640	1.00	40.87
ATOM	5146	N	LEU	D	359	95.673	-0.834	174.909	1.00	40.73
ATOM	5147	CA	LEU	D	359	95.243	-1.694	176.015	1.00	40.07
ATOM	5148	CB	LEU	D	359	94.083	-2.584	175.567	1.00	37.19
ATOM	5149	CG	LEU	D	359	92.900	-1.926	174.858	1.00	37.09
ATOM	5150	CD1	LEU	D	359	91.866	-2.983	174.499	1.00	34.94
ATOM	5151	CD2	LEU	D	359	92.291	-0.851	175.739	1.00	36.94
ATOM	5152	C	LEU	D	359	96.405	-2.583	176.490	1.00	41.50
ATOM	5153	O	LEU	D	359	96.472	-2.906	177.705	1.00	43.25

Table I

HETATM	5154	S	SO4	1	101.860	26.306	120.782	1.00	67.75
HETATM	5155	O1	SO4	1	101.069	25.832	121.933	1.00	68.48
HETATM	5156	O2	SO4	1	101.467	25.556	119.574	1.00	67.57
HETATM	5157	O3	SO4	1	101.618	27.745	120.575	1.00	69.30
HETATM	5158	O4	SO4	1	103.293	26.096	121.052	1.00	68.39
HETATM	5159	S	SO4	2	112.071	33.384	123.815	1.00	66.75
HETATM	5160	O1	SO4	2	113.069	34.455	123.623	1.00	67.50
HETATM	5161	O2	SO4	2	112.663	32.092	123.418	1.00	66.52
HETATM	5162	O3	SO4	2	111.676	33.341	125.238	1.00	65.71
HETATM	5163	O4	SO4	2	110.883	33.652	122.975	1.00	66.55
HETATM	5164	S	SO4	3	77.189	23.441	106.691	1.00	83.31
HETATM	5165	O1	SO4	3	78.088	22.827	105.694	1.00	84.63
HETATM	5166	O2	SO4	3	77.908	23.560	107.969	1.00	84.80
HETATM	5167	O3	SO4	3	76.762	24.778	106.237	1.00	82.90
HETATM	5168	O4	SO4	3	76.003	22.590	106.876	1.00	83.82
HETATM	5169	S	SO4	4	85.406	27.736	115.455	1.00	90.59
HETATM	5170	O1	SO4	4	86.326	28.866	115.704	1.00	89.09
HETATM	5171	O2	SO4	4	86.162	26.578	114.945	1.00	89.08
HETATM	5172	O3	SO4	4	84.725	27.358	116.711	1.00	89.23
HETATM	5173	O4	SO4	4	84.404	28.146	114.455	1.00	89.64

Table 2

Table 2
FGFR1 D2-D3 Complexed with FGF1

ATOM	1	CB	TYR	8	-6.051	51.528	11.919	1.00	28.44
ATOM	2	CG	TYR	8	-6.818	50.221	12.093	1.00	27.45
ATOM	3	CD1	TYR	8	-8.094	50.053	11.541	1.00	24.63
ATOM	4	CE1	TYR	8	-8.834	48.901	11.773	1.00	20.69
ATOM	5	CD2	TYR	8	-6.302	49.185	12.876	1.00	25.25
ATOM	6	CE2	TYR	8	-7.038	48.029	13.114	1.00	22.59
ATOM	7	CZ	TYR	8	-8.303	47.896	12.564	1.00	22.85
ATOM	8	OH	TYR	8	-9.040	46.769	12.836	1.00	21.66
ATOM	9	C	TYR	8	-8.095	52.815	12.656	1.00	32.48
ATOM	10	O	TYR	8	-8.624	53.046	11.564	1.00	33.42
ATOM	11	N	TYR	8	-6.151	52.546	14.217	1.00	28.27
ATOM	12	CA	TYR	8	-6.567	52.705	12.782	1.00	31.41
ATOM	13	N	LYS	9	-8.801	52.636	13.768	1.00	31.66
ATOM	14	CA	LYS	9	-10.252	52.748	13.756	1.00	32.17
ATOM	15	CB	LYS	9	-10.885	51.750	14.723	1.00	32.91
ATOM	16	CG	LYS	9	-10.816	50.308	14.230	1.00	36.66
ATOM	17	CD	LYS	9	-11.854	49.432	14.901	1.00	34.19
ATOM	18	CE	LYS	9	-12.006	48.114	14.163	1.00	36.17
ATOM	19	NZ	LYS	9	-13.244	47.392	14.591	1.00	36.62
ATOM	20	C	LYS	9	-10.680	54.160	14.127	1.00	34.00
ATOM	21	O	LYS	9	-11.772	54.598	13.773	1.00	37.26
ATOM	22	N	LYS	10	-9.808	54.872	14.831	1.00	32.38
ATOM	23	CA	LYS	10	-10.082	56.238	15.254	1.00	30.25
ATOM	24	CB	LYS	10	-9.059	56.650	16.324	1.00	29.82
ATOM	25	C	LYS	10	-10.044	57.227	14.079	1.00	28.52
ATOM	26	O	LYS	10	-9.275	57.051	13.131	1.00	27.07
ATOM	27	N	PRO	11	-10.880	58.281	14.129	1.00	27.69
ATOM	28	CD	PRO	11	-11.964	58.562	15.084	1.00	26.12
ATOM	29	CA	PRO	11	-10.885	59.261	13.035	1.00	27.89
ATOM	30	CB	PRO	11	-12.094	60.145	13.357	1.00	26.47
ATOM	31	CG	PRO	11	-12.967	59.261	14.206	1.00	27.98
ATOM	32	C	PRO	11	-9.579	60.041	13.061	1.00	28.01
ATOM	33	O	PRO	11	-9.038	60.303	14.126	1.00	31.43
ATOM	34	N	LYS	12	-9.071	60.412	11.896	1.00	27.87
ATOM	35	CA	LYS	12	-7.825	61.159	11.837	1.00	27.45
ATOM	36	CB	LYS	12	-6.745	60.357	11.111	1.00	26.62
ATOM	37	CG	LYS	12	-6.764	58.877	11.359	1.00	33.32
ATOM	38	CD	LYS	12	-5.765	58.177	10.429	1.00	39.88
ATOM	39	CE	LYS	12	-5.737	56.658	10.631	1.00	42.08
ATOM	40	NZ	LYS	12	-4.753	56.011	9.717	1.00	45.02
ATOM	41	C	LYS	12	-8.047	62.440	11.050	1.00	26.96
ATOM	42	O	LYS	12	-9.171	62.785	10.684	1.00	27.06
ATOM	43	N	LEU	13	-6.950	63.137	10.797	1.00	22.89
ATOM	44	CA	LEU	13	-6.975	64.342	10.008	1.00	20.98
ATOM	45	CB	LEU	13	-6.530	65.547	10.828	1.00	18.90
ATOM	46	CG	LEU	13	-6.972	65.613	12.286	1.00	19.21
ATOM	47	CD1	LEU	13	-6.081	66.620	13.034	1.00	17.37
ATOM	48	CD2	LEU	13	-8.448	65.957	12.368	1.00	11.37
ATOM	49	C	LEU	13	-5.916	64.030	8.962	1.00	23.04
ATOM	50	O	LEU	13	-4.903	63.388	9.272	1.00	20.71
ATOM	51	N	LEU	14	-6.155	64.453	7.723	1.00	24.54
ATOM	52	CA	LEU	14	-5.192	64.230	6.657	1.00	25.10
ATOM	53	CB	LEU	14	-5.877	63.676	5.395	1.00	26.61
ATOM	54	CG	LEU	14	-6.531	62.285	5.454	1.00	26.43
ATOM	55	CD1	LEU	14	-6.795	61.800	4.037	1.00	26.12
ATOM	56	CD2	LEU	14	-5.621	61.289	6.157	1.00	26.35

Table 2

ATOM	57	C	LEU	14	-4.532	65.578	6.382	1.00	24.80
ATOM	58	O	LEU	14	-5.057	66.414	5.650	1.00	29.43
ATOM	59	N	TYR	15	-3.383	65.778	7.011	1.00	20.82
ATOM	60	CA	TYR	15	-2.610	66.994	6.900	1.00	16.34
ATOM	61	CB	TYR	15	-1.619	67.035	8.076	1.00	16.55
ATOM	62	CG	TYR	15	-0.514	68.069	7.993	1.00	15.27
ATOM	63	CD1	TYR	15	0.667	67.811	7.296	1.00	11.64
ATOM	64	CE1	TYR	15	1.680	68.768	7.213	1.00	12.97
ATOM	65	CD2	TYR	15	-0.656	69.314	8.610	1.00	18.36
ATOM	66	CE2	TYR	15	0.351	70.281	8.538	1.00	17.26
ATOM	67	CZ	TYR	15	1.513	70.005	7.838	1.00	16.66
ATOM	68	OH	TYR	15	2.497	70.973	7.754	1.00	17.84
ATOM	69	C	TYR	15	-1.886	66.980	5.571	1.00	16.68
ATOM	70	O	TYR	15	-1.275	65.984	5.215	1.00	16.87
ATOM	71	N	CYS	16	-1.970	68.074	4.824	1.00	17.57
ATOM	72	CA	CYS	16	-1.277	68.158	3.546	1.00	21.60
ATOM	73	CB	CYS	16	-2.156	68.814	2.491	1.00	21.60
ATOM	74	SG	CYS	16	-1.350	68.884	0.878	1.00	24.76
ATOM	75	C	CYS	16	-0.019	68.991	3.739	1.00	24.96
ATOM	76	O	CYS	16	-0.082	70.116	4.239	1.00	24.56
ATOM	77	N	SER	17	1.121	68.454	3.318	1.00	27.88
ATOM	78	CA	SER	17	2.396	69.146	3.507	1.00	32.13
ATOM	79	CB	SER	17	3.537	68.134	3.420	1.00	31.38
ATOM	80	OG	SER	17	3.423	67.359	2.243	1.00	37.53
ATOM	81	C	SER	17	2.697	70.337	2.596	1.00	33.49
ATOM	82	O	SER	17	3.683	71.055	2.805	1.00	34.92
ATOM	83	N	ASN	18	1.847	70.563	1.601	1.00	34.25
ATOM	84	CA	ASN	18	2.057	71.665	0.670	1.00	33.45
ATOM	85	CB	ASN	18	1.176	71.458	-0.564	1.00	35.74
ATOM	86	CG	ASN	18	1.612	72.304	-1.742	1.00	37.98
ATOM	87	OD1	ASN	18	2.767	72.247	-2.175	1.00	39.41
ATOM	88	ND2	ASN	18	0.685	73.092	-2.273	1.00	39.81
ATOM	89	C	ASN	18	1.814	73.057	1.285	1.00	31.98
ATOM	90	O	ASN	18	2.399	74.035	0.843	1.00	34.60
ATOM	91	N	GLY	19	0.971	73.150	2.306	1.00	29.15
ATOM	92	CA	GLY	19	0.714	74.441	2.921	1.00	25.91
ATOM	93	C	GLY	19	0.290	74.337	4.375	1.00	24.97
ATOM	94	O	GLY	19	-0.056	75.331	5.025	1.00	20.29
ATOM	95	N	GLY	20	0.314	73.113	4.886	1.00	26.22
ATOM	96	CA	GLY	20	-0.066	72.881	6.264	1.00	28.13
ATOM	97	C	GLY	20	-1.565	72.825	6.474	1.00	29.03
ATOM	98	O	GLY	20	-2.030	72.932	7.614	1.00	30.16
ATOM	99	N	HIS	21	-2.320	72.643	5.388	1.00	28.28
ATOM	100	CA	HIS	21	-3.783	72.580	5.463	1.00	26.97
ATOM	101	CB	HIS	21	-4.428	73.093	4.167	1.00	26.00
ATOM	102	CG	HIS	21	-4.145	74.534	3.875	1.00	27.23
ATOM	103	CD2	HIS	21	-4.774	75.664	4.281	1.00	26.36
ATOM	104	ND1	HIS	21	-3.095	74.941	3.080	1.00	24.16
ATOM	105	CE1	HIS	21	-3.090	76.261	3.005	1.00	26.23
ATOM	106	NE2	HIS	21	-4.098	76.724	3.725	1.00	28.72
ATOM	107	C	HIS	21	-4.326	71.188	5.740	1.00	26.11
ATOM	108	O	HIS	21	-3.840	70.195	5.198	1.00	25.92
ATOM	109	N	PHE	22	-5.343	71.130	6.592	1.00	26.87
ATOM	110	CA	PHE	22	-5.998	69.872	6.934	1.00	26.99
ATOM	111	CB	PHE	22	-6.611	69.925	8.339	1.00	27.89
ATOM	112	CG	PHE	22	-5.597	70.021	9.441	1.00	34.47
ATOM	113	CD1	PHE	22	-5.700	69.214	10.567	1.00	35.19
ATOM	114	CD2	PHE	22	-4.530	70.917	9.353	1.00	37.94
ATOM	115	CE1	PHE	22	-4.764	69.296	11.582	1.00	35.09
ATOM	116	CE2	PHE	22	-3.590	71.005	10.366	1.00	36.95
ATOM	117	CZ	PHE	22	-3.708	70.191	11.482	1.00	36.26

Table 2

ATOM	118	C	PHE	22	-7.114	69.645	5.929	1.00	26.43
ATOM	119	O	PHE	22	-7.964	70.519	5.728	1.00	24.41
ATOM	120	N	LEU	23	-7.116	68.472	5.301	1.00	24.90
ATOM	121	CA	LEU	23	-8.148	68.163	4.330	1.00	21.79
ATOM	122	CB	LEU	23	-7.981	66.731	3.829	1.00	20.26
ATOM	123	CG	LEU	23	-8.783	66.381	2.571	1.00	22.41
ATOM	124	CD1	LEU	23	-8.610	67.473	1.509	1.00	21.81
ATOM	125	CD2	LEU	23	-8.323	65.032	2.035	1.00	20.82
ATOM	126	C	LEU	23	-9.507	68.365	4.999	1.00	20.18
ATOM	127	O	LEU	23	-9.754	67.854	6.089	1.00	19.53
ATOM	128	N	ARG	24	-10.371	69.137	4.341	1.00	21.33
ATOM	129	CA	ARG	24	-11.710	69.460	4.848	1.00	21.46
ATOM	130	CB	ARG	24	-11.778	70.954	5.211	1.00	21.37
ATOM	131	CG	ARG	24	-13.175	71.469	5.476	1.00	18.70
ATOM	132	CD	ARG	24	-13.176	72.825	6.148	1.00	19.39
ATOM	133	NE	ARG	24	-12.566	73.877	5.331	1.00	21.99
ATOM	134	CZ	ARG	24	-12.638	75.179	5.610	1.00	18.80
ATOM	135	NH1	ARG	24	-13.296	75.601	6.682	1.00	14.56
ATOM	136	NH2	ARG	24	-12.043	76.063	4.822	1.00	18.72
ATOM	137	C	ARG	24	-12.835	69.142	3.871	1.00	21.12
ATOM	138	O	ARG	24	-12.712	69.368	2.669	1.00	24.62
ATOM	139	N	ILE	25	-13.937	68.625	4.390	1.00	20.99
ATOM	140	CA	ILE	25	-15.091	68.314	3.548	1.00	24.24
ATOM	141	CB	ILE	25	-15.446	66.799	3.576	1.00	25.03
ATOM	142	CG2	ILE	25	-16.653	66.530	2.679	1.00	24.51
ATOM	143	CG1	ILE	25	-14.253	65.962	3.103	1.00	23.59
ATOM	144	CD1	ILE	25	-14.524	64.470	3.093	1.00	20.41
ATOM	145	C	ILE	25	-16.298	69.105	4.059	1.00	25.48
ATOM	146	O	ILE	25	-17.031	68.632	4.935	1.00	27.47
ATOM	147	N	LEU	26	-16.490	70.308	3.515	1.00	25.58
ATOM	148	CA	LEU	26	-17.594	71.179	3.913	1.00	26.62
ATOM	149	CB	LEU	26	-17.450	72.535	3.231	1.00	27.43
ATOM	150	CG	LEU	26	-16.176	73.273	3.645	1.00	27.65
ATOM	151	CD1	LEU	26	-15.932	74.464	2.718	1.00	26.42
ATOM	152	CD2	LEU	26	-16.302	73.703	5.105	1.00	21.68
ATOM	153	C	LEU	26	-18.935	70.551	3.563	1.00	27.42
ATOM	154	O	LEU	26	-19.108	70.007	2.477	1.00	27.49
ATOM	155	N	PRO	27	-19.910	70.640	4.489	1.00	27.87
ATOM	156	CD	PRO	27	-19.797	71.543	5.639	1.00	26.97
ATOM	157	CA	PRO	27	-21.274	70.095	4.389	1.00	28.57
ATOM	158	CB	PRO	27	-21.965	70.683	5.622	1.00	27.09
ATOM	159	CG	PRO	27	-21.225	71.945	5.862	1.00	27.51
ATOM	160	C	PRO	27	-22.067	70.316	3.097	1.00	29.49
ATOM	161	O	PRO	27	-23.089	69.674	2.871	1.00	31.43
ATOM	162	N	ASP	28	-21.584	71.198	2.242	1.00	29.56
ATOM	163	CA	ASP	28	-22.239	71.494	0.977	1.00	31.81
ATOM	164	CB	ASP	28	-22.107	72.980	0.732	1.00	35.00
ATOM	165	CG	ASP	28	-20.752	73.492	1.163	1.00	39.97
ATOM	166	OD1	ASP	28	-19.774	73.299	0.398	1.00	38.80
ATOM	167	OD2	ASP	28	-20.663	74.049	2.288	1.00	40.66
ATOM	168	C	ASP	28	-21.578	70.720	-0.165	1.00	32.77
ATOM	169	O	ASP	28	-21.946	70.874	-1.331	1.00	32.13
ATOM	170	N	GLY	29	-20.592	69.897	0.174	1.00	32.44
ATOM	171	CA	GLY	29	-19.894	69.126	-0.834	1.00	32.39
ATOM	172	C	GLY	29	-18.548	69.728	-1.199	1.00	34.62
ATOM	173	O	GLY	29	-17.768	69.108	-1.923	1.00	35.14
ATOM	174	N	THR	30	-18.264	70.931	-0.700	1.00	34.26
ATOM	175	CA	THR	30	-16.997	71.596	-1.001	1.00	34.72
ATOM	176	CB	THR	30	-17.054	73.104	-0.641	1.00	36.00
ATOM	177	OG1	THR	30	-17.726	73.813	-1.688	1.00	35.48
ATOM	178	CG2	THR	30	-15.643	73.684	-0.453	1.00	35.94

Table 2

ATOM	179	C	THR	30	-15.803	70.971	-0.289	1.00	34.24
ATOM	180	O	THR	30	-15.786	70.875	0.939	1.00	36.02
ATOM	181	N	VAL	31	-14.807	70.562	-1.075	1.00	33.03
ATOM	182	CA	VAL	31	-13.581	69.946	-0.561	1.00	31.16
ATOM	183	CB	VAL	31	-13.221	68.679	-1.375	1.00	30.16
ATOM	184	CG1	VAL	31	-11.803	68.227	-1.054	1.00	27.58
ATOM	185	CG2	VAL	31	-14.222	67.567	-1.063	1.00	24.85
ATOM	186	C	VAL	31	-12.426	70.945	-0.618	1.00	30.88
ATOM	187	O	VAL	31	-12.103	71.496	-1.675	1.00	30.91
ATOM	188	N	ASP	32	-11.797	71.171	0.526	1.00	30.08
ATOM	189	CA	ASP	32	-10.710	72.143	0.603	1.00	29.27
ATOM	190	CB	ASP	32	-11.295	73.551	0.712	1.00	26.28
ATOM	191	CG	ASP	32	-11.861	73.839	2.100	1.00	24.69
ATOM	192	OD1	ASP	32	-12.213	72.887	2.838	1.00	24.75
ATOM	193	OD2	ASP	32	-11.960	75.022	2.460	1.00	26.59
ATOM	194	C	ASP	32	-9.855	71.889	1.834	1.00	28.84
ATOM	195	O	ASP	32	-9.974	70.850	2.484	1.00	25.70
ATOM	196	N	GLY	33	-9.013	72.870	2.158	1.00	29.42
ATOM	197	CA	GLY	33	-8.148	72.764	3.317	1.00	28.55
ATOM	198	C	GLY	33	-8.264	73.951	4.252	1.00	26.20
ATOM	199	O	GLY	33	-8.721	75.017	3.861	1.00	25.20
ATOM	200	N	THR	34	-7.853	73.749	5.499	1.00	27.35
ATOM	201	CA	THR	34	-7.872	74.796	6.517	1.00	27.58
ATOM	202	CB	THR	34	-9.186	74.802	7.313	1.00	27.59
ATOM	203	OG1	THR	34	-8.988	75.504	8.547	1.00	26.09
ATOM	204	CG2	THR	34	-9.642	73.387	7.605	1.00	30.18
ATOM	205	C	THR	34	-6.730	74.588	7.500	1.00	28.50
ATOM	206	O	THR	34	-6.192	73.485	7.611	1.00	31.02
ATOM	207	N	ARG	35	-6.357	75.642	8.216	1.00	27.33
ATOM	208	CA	ARG	35	-5.278	75.525	9.187	1.00	25.21
ATOM	209	CB	ARG	35	-4.282	76.671	9.014	1.00	25.09
ATOM	210	CG	ARG	35	-3.544	76.673	7.685	1.00	25.03
ATOM	211	CD	ARG	35	-2.526	77.804	7.631	1.00	26.07
ATOM	212	NE	ARG	35	-1.560	77.601	6.554	1.00	28.74
ATOM	213	CZ	ARG	35	-1.337	78.472	5.572	1.00	32.52
ATOM	214	NH1	ARG	35	-2.003	79.624	5.517	1.00	32.37
ATOM	215	NH2	ARG	35	-0.457	78.185	4.628	1.00	34.71
ATOM	216	C	ARG	35	-5.826	75.532	10.604	1.00	26.22
ATOM	217	O	ARG	35	-5.095	75.788	11.550	1.00	28.51
ATOM	218	N	ASP	36	-7.115	75.252	10.751	1.00	27.90
ATOM	219	CA	ASP	36	-7.753	75.234	12.064	1.00	30.78
ATOM	220	CB	ASP	36	-8.994	76.111	12.032	1.00	33.11
ATOM	221	CG	ASP	36	-9.836	75.956	13.270	1.00	36.94
ATOM	222	OD1	ASP	36	-10.985	76.458	13.260	1.00	36.42
ATOM	223	OD2	ASP	36	-9.342	75.335	14.246	1.00	35.09
ATOM	224	C	ASP	36	-8.141	73.817	12.523	1.00	32.42
ATOM	225	O	ASP	36	-8.946	73.140	11.876	1.00	31.43
ATOM	226	N	ARG	37	-7.587	73.386	13.657	1.00	32.70
ATOM	227	CA	ARG	37	-7.863	72.046	14.173	1.00	30.63
ATOM	228	CB	ARG	37	-6.715	71.530	15.053	1.00	28.29
ATOM	229	CG	ARG	37	-5.446	71.235	14.284	1.00	30.34
ATOM	230	CD	ARG	37	-4.372	70.546	15.121	1.00	28.87
ATOM	231	NE	ARG	37	-4.700	69.167	15.474	1.00	26.36
ATOM	232	CZ	ARG	37	-3.783	68.223	15.691	1.00	28.48
ATOM	233	NH1	ARG	37	-2.484	68.505	15.588	1.00	20.85
ATOM	234	NH2	ARG	37	-4.160	66.994	16.016	1.00	28.70
ATOM	235	C	ARG	37	-9.143	71.938	14.951	1.00	28.28
ATOM	236	O	ARG	37	-9.576	70.833	15.262	1.00	27.31
ATOM	237	N	SER	38	-9.744	73.067	15.290	1.00	25.88
ATOM	238	CA	SER	38	-10.984	72.998	16.036	1.00	28.07
ATOM	239	CB	SER	38	-11.111	74.183	16.996	1.00	28.83

Table 2

ATOM	240	OG	SER	38	-10.866	75.412	16.344	1.00	34.41
ATOM	241	C	SER	38	-12.161	72.939	15.070	1.00	27.66
ATOM	242	O	SER	38	-13.306	72.723	15.489	1.00	28.69
ATOM	243	N	ASP	39	-11.859	73.119	13.780	1.00	25.52
ATOM	244	CA	ASP	39	-12.856	73.070	12.707	1.00	21.79
ATOM	245	CB	ASP	39	-12.161	73.216	11.354	1.00	24.27
ATOM	246	CG	ASP	39	-13.134	73.216	10.183	1.00	27.75
ATOM	247	OD1	ASP	39	-13.849	72.217	9.989	1.00	32.47
ATOM	248	OD2	ASP	39	-13.184	74.217	9.437	1.00	28.63
ATOM	249	C	ASP	39	-13.529	71.716	12.800	1.00	21.20
ATOM	250	O	ASP	39	-12.852	70.690	12.818	1.00	19.87
ATOM	251	N	GLN	40	-14.857	71.710	12.859	1.00	22.40
ATOM	252	CA	GLN	40	-15.617	70.467	12.988	1.00	23.65
ATOM	253	CB	GLN	40	-17.051	70.781	13.402	1.00	23.78
ATOM	254	C	GLN	40	-15.663	69.525	11.787	1.00	26.05
ATOM	255	O	GLN	40	-16.152	68.407	11.922	1.00	28.44
ATOM	256	N	HIS	41	-15.152	69.945	10.629	1.00	27.23
ATOM	257	CA	HIS	41	-15.206	69.100	9.433	1.00	30.01
ATOM	258	CB	HIS	41	-15.914	69.859	8.306	1.00	33.08
ATOM	259	CG	HIS	41	-17.335	70.219	8.623	1.00	36.53
ATOM	260	CD2	HIS	41	-18.481	69.511	8.491	1.00	36.05
ATOM	261	ND1	HIS	41	-17.691	71.426	9.185	1.00	34.96
ATOM	262	CE1	HIS	41	-18.997	71.445	9.388	1.00	33.67
ATOM	263	NE2	HIS	41	-19.501	70.296	8.977	1.00	34.10
ATOM	264	C	HIS	41	-13.900	68.500	8.883	1.00	30.83
ATOM	265	O	HIS	41	-13.843	68.071	7.715	1.00	29.28
ATOM	266	N	ILE	42	-12.859	68.455	9.709	1.00	29.98
ATOM	267	CA	ILE	42	-11.578	67.899	9.274	1.00	27.41
ATOM	268	CB	ILE	42	-10.392	68.785	9.737	1.00	26.47
ATOM	269	CG2	ILE	42	-10.168	69.898	8.740	1.00	28.37
ATOM	270	CG1	ILE	42	-10.658	69.351	11.133	1.00	22.43
ATOM	271	CD1	ILE	42	-9.469	70.047	11.736	1.00	21.79
ATOM	272	C	ILE	42	-11.332	66.453	9.729	1.00	26.46
ATOM	273	O	ILE	42	-10.399	65.801	9.247	1.00	25.66
ATOM	274	N	GLN	43	-12.168	65.959	10.642	1.00	23.87
ATOM	275	CA	GLN	43	-12.037	64.595	11.148	1.00	24.15
ATOM	276	CB	GLN	43	-12.778	64.438	12.477	1.00	24.07
ATOM	277	CG	GLN	43	-12.360	65.405	13.552	1.00	26.31
ATOM	278	CD	GLN	43	-12.992	66.764	13.382	1.00	27.49
ATOM	279	OE1	GLN	43	-14.216	66.897	13.447	1.00	32.47
ATOM	280	NE2	GLN	43	-12.168	67.786	13.167	1.00	24.21
ATOM	281	C	GLN	43	-12.577	63.562	10.157	1.00	22.64
ATOM	282	O	GLN	43	-13.765	63.524	9.862	1.00	23.92
ATOM	283	N	LEU	44	-11.698	62.697	9.686	1.00	21.43
ATOM	284	CA	LEU	44	-12.072	61.691	8.715	1.00	22.69
ATOM	285	CB	LEU	44	-11.224	61.871	7.452	1.00	18.32
ATOM	286	CG	LEU	44	-10.987	63.346	7.110	1.00	17.15
ATOM	287	CD1	LEU	44	-9.968	63.467	5.977	1.00	12.49
ATOM	288	CD2	LEU	44	-12.322	64.014	6.773	1.00	11.74
ATOM	289	C	LEU	44	-11.922	60.261	9.216	1.00	25.60
ATOM	290	O	LEU	44	-11.048	59.943	10.031	1.00	27.19
ATOM	291	N	GLN	45	-12.782	59.398	8.693	1.00	26.35
ATOM	292	CA	GLN	45	-12.775	57.996	9.039	1.00	26.11
ATOM	293	CB	GLN	45	-14.130	57.600	9.610	1.00	29.41
ATOM	294	CG	GLN	45	-14.122	56.242	10.247	1.00	33.87
ATOM	295	CD	GLN	45	-13.128	56.188	11.378	1.00	37.58
ATOM	296	OE1	GLN	45	-13.257	56.925	12.359	1.00	39.35
ATOM	297	NE2	GLN	45	-12.119	55.325	11.247	1.00	37.04
ATOM	298	C	GLN	45	-12.481	57.173	7.781	1.00	26.30
ATOM	299	O	GLN	45	-13.370	56.933	6.960	1.00	27.12
ATOM	300	N	LEU	46	-11.228	56.752	7.637	1.00	23.91

Table 2

ATOM	301	CA	LEU	46	-10.806	55.954	6.502	1.00	21.84
ATOM	302	CB	LEU	46	-9.293	56.072	6.312	1.00	21.30
ATOM	303	CG	LEU	46	-8.801	57.321	5.564	1.00	22.12
ATOM	304	CD1	LEU	46	-9.167	58.593	6.300	1.00	19.17
ATOM	305	CD2	LEU	46	-7.308	57.221	5.386	1.00	24.79
ATOM	306	C	LEU	46	-11.196	54.499	6.706	1.00	22.57
ATOM	307	O	LEU	46	-11.141	53.992	7.821	1.00	21.81
ATOM	308	N	SER	47	-11.598	53.835	5.624	1.00	25.02
ATOM	309	CA	SER	47	-12.010	52.429	5.677	1.00	25.85
ATOM	310	CB	SER	47	-13.529	52.328	5.762	1.00	23.77
ATOM	311	OG	SER	47	-14.085	53.517	6.293	1.00	29.89
ATOM	312	C	SER	47	-11.540	51.683	4.429	1.00	27.64
ATOM	313	O	SER	47	-11.490	52.248	3.332	1.00	28.03
ATOM	314	N	ALA	48	-11.207	50.408	4.588	1.00	28.72
ATOM	315	CA	ALA	48	-10.755	49.618	3.456	1.00	31.22
ATOM	316	CB	ALA	48	-9.605	48.716	3.875	1.00	31.58
ATOM	317	C	ALA	48	-11.876	48.779	2.855	1.00	33.53
ATOM	318	O	ALA	48	-12.469	47.938	3.528	1.00	34.12
ATOM	319	N	GLU	49	-12.178	49.023	1.586	1.00	35.72
ATOM	320	CA	GLU	49	-13.201	48.247	0.900	1.00	37.48
ATOM	321	CB	GLU	49	-13.668	48.988	-0.357	1.00	41.73
ATOM	322	CG	GLU	49	-14.710	48.245	-1.190	1.00	49.89
ATOM	323	CD	GLU	49	-15.845	47.643	-0.350	1.00	56.40
ATOM	324	OE1	GLU	49	-16.359	48.326	0.570	1.00	58.69
ATOM	325	OE2	GLU	49	-16.233	46.483	-0.623	1.00	59.10
ATOM	326	C	GLU	49	-12.510	46.938	0.519	1.00	36.22
ATOM	327	O	GLU	49	-13.113	45.864	0.516	1.00	36.49
ATOM	328	N	SER	50	-11.222	47.061	0.217	1.00	33.53
ATOM	329	CA	SER	50	-10.369	45.950	-0.175	1.00	29.49
ATOM	330	CB	SER	50	-10.395	45.768	-1.690	1.00	29.77
ATOM	331	OG	SER	50	-11.727	45.725	-2.174	1.00	33.14
ATOM	332	C	SER	50	-8.976	46.376	0.242	1.00	28.11
ATOM	333	O	SER	50	-8.779	47.531	0.625	1.00	29.53
ATOM	334	N	VAL	51	-8.015	45.459	0.172	1.00	23.82
ATOM	335	CA	VAL	51	-6.643	45.782	0.537	1.00	18.87
ATOM	336	CB	VAL	51	-5.678	44.594	0.243	1.00	18.83
ATOM	337	CG1	VAL	51	-4.234	44.969	0.600	1.00	16.48
ATOM	338	CG2	VAL	51	-6.103	43.372	1.024	1.00	15.72
ATOM	339	C	VAL	51	-6.197	46.982	-0.294	1.00	18.34
ATOM	340	O	VAL	51	-6.427	47.026	-1.500	1.00	19.32
ATOM	341	N	GLY	52	-5.582	47.961	0.357	1.00	17.24
ATOM	342	CA	GLY	52	-5.085	49.135	-0.344	1.00	16.86
ATOM	343	C	GLY	52	-6.058	50.189	-0.839	1.00	17.15
ATOM	344	O	GLY	52	-5.634	51.293	-1.154	1.00	16.89
ATOM	345	N	GLU	53	-7.345	49.865	-0.919	1.00	20.93
ATOM	346	CA	GLU	53	-8.354	50.809	-1.404	1.00	24.08
ATOM	347	CB	GLU	53	-9.283	50.113	-2.387	1.00	26.57
ATOM	348	CG	GLU	53	-8.591	49.029	-3.178	1.00	31.61
ATOM	349	CD	GLU	53	-9.445	48.463	-4.292	1.00	34.45
ATOM	350	OE1	GLU	53	-10.637	48.139	-4.048	1.00	36.05
ATOM	351	OE2	GLU	53	-8.904	48.336	-5.412	1.00	34.43
ATOM	352	C	GLU	53	-9.153	51.321	-0.224	1.00	25.65
ATOM	353	O	GLU	53	-9.654	50.533	0.582	1.00	26.79
ATOM	354	N	VAL	54	-9.306	52.637	-0.132	1.00	25.28
ATOM	355	CA	VAL	54	-10.000	53.198	1.012	1.00	25.84
ATOM	356	CB	VAL	54	-8.991	53.874	1.986	1.00	27.15
ATOM	357	CG1	VAL	54	-7.793	52.970	2.223	1.00	26.22
ATOM	358	CG2	VAL	54	-8.520	55.202	1.420	1.00	26.83
ATOM	359	C	VAL	54	-11.081	54.221	0.737	1.00	27.05
ATOM	360	O	VAL	54	-11.087	54.896	-0.290	1.00	29.16
ATOM	361	N	TYR	55	-12.007	54.310	1.680	1.00	27.41

Table 2

ATOM	362	CA	TYR	55	-13.063	55.305	1.642	1.00	26.40
ATOM	363	CB	TYR	55	-14.401	54.734	2.114	1.00	27.97
ATOM	364	CG	TYR	55	-15.119	53.901	1.079	1.00	31.95
ATOM	365	CD1	TYR	55	-15.442	54.432	-0.174	1.00	30.89
ATOM	366	CE1	TYR	55	-16.139	53.686	-1.113	1.00	29.38
ATOM	367	CD2	TYR	55	-15.511	52.594	1.364	1.00	32.02
ATOM	368	CE2	TYR	55	-16.211	51.840	0.432	1.00	33.83
ATOM	369	CZ	TYR	55	-16.525	52.390	-0.806	1.00	31.97
ATOM	370	OH	TYR	55	-17.239	51.642	-1.716	1.00	29.18
ATOM	371	C	TYR	55	-12.559	56.324	2.665	1.00	25.59
ATOM	372	O	TYR	55	-11.805	55.977	3.584	1.00	21.61
ATOM	373	N	ILE	56	-12.972	57.573	2.504	1.00	22.88
ATOM	374	CA	ILE	56	-12.547	58.628	3.398	1.00	20.19
ATOM	375	CB	ILE	56	-11.459	59.468	2.728	1.00	18.99
ATOM	376	CG2	ILE	56	-11.139	60.690	3.585	1.00	20.24
ATOM	377	CG1	ILE	56	-10.234	58.589	2.461	1.00	15.90
ATOM	378	CD1	ILE	56	-9.179	59.251	1.601	1.00	17.40
ATOM	379	C	ILE	56	-13.750	59.491	3.656	1.00	20.26
ATOM	380	O	ILE	56	-14.124	60.276	2.797	1.00	23.54
ATOM	381	N	LYS	57	-14.370	59.371	4.823	1.00	22.25
ATOM	382	CA	LYS	57	-15.556	60.189	5.055	1.00	26.24
ATOM	383	CB	LYS	57	-16.821	59.323	5.029	1.00	26.57
ATOM	384	CG	LYS	57	-17.092	58.562	6.298	1.00	28.92
ATOM	385	CD	LYS	57	-18.595	58.459	6.529	1.00	33.90
ATOM	386	CE	LYS	57	-18.903	57.855	7.894	1.00	36.61
ATOM	387	NZ	LYS	57	-20.284	58.199	8.350	1.00	38.42
ATOM	388	C	LYS	57	-15.590	61.058	6.301	1.00	26.39
ATOM	389	O	LYS	57	-15.146	60.663	7.374	1.00	24.91
ATOM	390	N	SER	58	-16.146	62.251	6.134	1.00	27.09
ATOM	391	CA	SER	58	-16.287	63.185	7.230	1.00	27.99
ATOM	392	CB	SER	58	-16.995	64.457	6.754	1.00	28.30
ATOM	393	OG	SER	58	-17.171	65.390	7.806	1.00	24.98
ATOM	394	C	SER	58	-17.118	62.508	8.309	1.00	29.22
ATOM	395	O	SER	58	-18.149	61.895	8.027	1.00	28.11
ATOM	396	N	THR	59	-16.653	62.616	9.545	1.00	31.50
ATOM	397	CA	THR	59	-17.344	62.033	10.684	1.00	32.90
ATOM	398	CB	THR	59	-16.410	61.942	11.879	1.00	35.91
ATOM	399	OG1	THR	59	-15.721	63.193	12.011	1.00	40.36
ATOM	400	CG2	THR	59	-15.397	60.808	11.694	1.00	39.43
ATOM	401	C	THR	59	-18.505	62.932	11.067	1.00	30.76
ATOM	402	O	THR	59	-19.514	62.474	11.589	1.00	28.04
ATOM	403	N	GLU	60	-18.347	64.221	10.793	1.00	31.18
ATOM	404	CA	GLU	60	-19.367	65.201	11.119	1.00	30.56
ATOM	405	CB	GLU	60	-18.790	66.614	10.998	1.00	32.59
ATOM	406	CG	GLU	60	-19.522	67.642	11.850	1.00	34.81
ATOM	407	CD	GLU	60	-19.646	67.193	13.304	1.00	36.76
ATOM	408	OE1	GLU	60	-18.625	66.744	13.885	1.00	38.08
ATOM	409	OE2	GLU	60	-20.760	67.288	13.864	1.00	33.66
ATOM	410	C	GLU	60	-20.603	65.087	10.244	1.00	29.55
ATOM	411	O	GLU	60	-21.719	64.952	10.744	1.00	27.43
ATOM	412	N	THR	61	-20.394	65.132	8.933	1.00	30.33
ATOM	413	CA	THR	61	-21.497	65.073	7.983	1.00	29.96
ATOM	414	CB	THR	61	-21.283	66.103	6.855	1.00	28.13
ATOM	415	OG1	THR	61	-20.209	65.682	6.013	1.00	28.36
ATOM	416	CG2	THR	61	-20.933	67.452	7.441	1.00	25.56
ATOM	417	C	THR	61	-21.775	63.702	7.355	1.00	31.53
ATOM	418	O	THR	61	-22.871	63.464	6.851	1.00	35.52
ATOM	419	N	GLY	62	-20.806	62.795	7.386	1.00	30.76
ATOM	420	CA	GLY	62	-21.038	61.492	6.791	1.00	28.64
ATOM	421	C	GLY	62	-20.905	61.548	5.276	1.00	28.22
ATOM	422	O	GLY	62	-21.453	60.718	4.555	1.00	26.62

Table 2

ATOM	423	N	GLN	63	-20.182	62.548	4.788	1.00	27.17
ATOM	424	CA	GLN	63	-19.965	62.685	3.359	1.00	26.55
ATOM	425	CB	GLN	63	-19.825	64.150	2.950	1.00	26.28
ATOM	426	CG	GLN	63	-21.023	65.036	3.212	1.00	29.09
ATOM	427	CD	GLN	63	-20.740	66.481	2.825	1.00	30.75
ATOM	428	OE1	GLN	63	-20.734	66.832	1.639	1.00	30.33
ATOM	429	NE2	GLN	63	-20.478	67.320	3.823	1.00	26.29
ATOM	430	C	GLN	63	-18.670	61.975	3.010	1.00	25.88
ATOM	431	O	GLN	63	-17.733	61.958	3.812	1.00	27.47
ATOM	432	N	TYR	64	-18.620	61.397	1.813	1.00	23.34
ATOM	433	CA	TYR	64	-17.426	60.706	1.350	1.00	21.48
ATOM	434	CB	TYR	64	-17.786	59.442	0.568	1.00	20.38
ATOM	435	CG	TYR	64	-18.377	58.359	1.426	1.00	20.27
ATOM	436	CD1	TYR	64	-19.697	58.430	1.864	1.00	19.31
ATOM	437	CE1	TYR	64	-20.225	57.466	2.711	1.00	18.93
ATOM	438	CD2	TYR	64	-17.601	57.289	1.853	1.00	21.00
ATOM	439	CE2	TYR	64	-18.124	56.317	2.701	1.00	20.56
ATOM	440	CZ	TYR	64	-19.430	56.414	3.128	1.00	19.38
ATOM	441	OH	TYR	64	-19.929	55.470	3.994	1.00	22.05
ATOM	442	C	TYR	64	-16.622	61.626	0.459	1.00	20.42
ATOM	443	O	TYR	64	-17.178	62.458	-0.250	1.00	20.96
ATOM	444	N	LEU	65	-15.306	61.500	0.525	1.00	19.55
ATOM	445	CA	LEU	65	-14.455	62.310	-0.307	1.00	20.09
ATOM	446	CB	LEU	65	-13.037	62.355	0.250	1.00	20.85
ATOM	447	CG	LEU	65	-11.985	63.017	-0.650	1.00	23.92
ATOM	448	CD1	LEU	65	-12.249	64.512	-0.740	1.00	22.56
ATOM	449	CD2	LEU	65	-10.591	62.749	-0.104	1.00	23.40
ATOM	450	C	LEU	65	-14.481	61.564	-1.624	1.00	23.95
ATOM	451	O	LEU	65	-14.342	60.340	-1.659	1.00	25.36
ATOM	452	N	ALA	66	-14.676	62.302	-2.705	1.00	27.03
ATOM	453	CA	ALA	66	-14.742	61.709	-4.023	1.00	27.15
ATOM	454	CB	ALA	66	-16.183	61.376	-4.356	1.00	24.77
ATOM	455	C	ALA	66	-14.159	62.648	-5.071	1.00	30.07
ATOM	456	O	ALA	66	-13.918	63.831	-4.817	1.00	30.31
ATOM	457	N	MET	67	-13.941	62.104	-6.258	1.00	34.43
ATOM	458	CA	MET	67	-13.382	62.857	-7.367	1.00	36.96
ATOM	459	CB	MET	67	-11.962	62.358	-7.648	1.00	35.46
ATOM	460	CG	MET	67	-11.258	63.064	-8.787	1.00	38.86
ATOM	461	SD	MET	67	-9.536	62.515	-9.015	1.00	37.06
ATOM	462	CE	MET	67	-8.656	63.791	-8.190	1.00	37.88
ATOM	463	C	MET	67	-14.280	62.676	-8.599	1.00	38.79
ATOM	464	O	MET	67	-14.544	61.546	-9.021	1.00	40.47
ATOM	465	N	ASP	68	-14.755	63.793	-9.152	1.00	38.95
ATOM	466	CA	ASP	68	-15.618	63.787	-10.328	1.00	38.31
ATOM	467	CB	ASP	68	-16.291	65.159	-10.506	1.00	41.23
ATOM	468	CG	ASP	68	-15.304	66.266	-10.876	1.00	43.09
ATOM	469	OD1	ASP	68	-15.723	67.440	-10.950	1.00	43.77
ATOM	470	OD2	ASP	68	-14.115	65.967	-11.097	1.00	44.63
ATOM	471	C	ASP	68	-14.794	63.448	-11.561	1.00	37.61
ATOM	472	O	ASP	68	-13.568	63.374	-11.496	1.00	35.14
ATOM	473	N	THR	69	-15.465	63.260	-12.690	1.00	39.16
ATOM	474	CA	THR	69	-14.761	62.924	-13.920	1.00	40.40
ATOM	475	CB	THR	69	-15.744	62.541	-15.031	1.00	39.26
ATOM	476	OG1	THR	69	-16.749	61.668	-14.497	1.00	41.34
ATOM	477	CG2	THR	69	-15.005	61.806	-16.147	1.00	39.63
ATOM	478	C	THR	69	-13.857	64.053	-14.411	1.00	40.83
ATOM	479	O	THR	69	-13.095	63.873	-15.357	1.00	40.64
ATOM	480	N	ASP	70	-13.936	65.213	-13.760	1.00	42.39
ATOM	481	CA	ASP	70	-13.109	66.372	-14.114	1.00	41.09
ATOM	482	CB	ASP	70	-13.790	67.681	-13.702	1.00	46.08
ATOM	483	CG	ASP	70	-14.998	68.015	-14.553	1.00	51.55

Table 2

ATOM	484	OD1	ASP	70	-15.830	68.826	-14.092	1.00	52.51
ATOM	485	OD2	ASP	70	-15.113	67.483	-15.680	1.00	54.94
ATOM	486	C	ASP	70	-11.798	66.289	-13.358	1.00	38.67
ATOM	487	O	ASP	70	-10.768	66.769	-13.817	1.00	37.28
ATOM	488	N	GLY	71	-11.856	65.673	-12.184	1.00	37.56
ATOM	489	CA	GLY	71	-10.683	65.559	-11.338	1.00	33.59
ATOM	490	C	GLY	71	-10.841	66.565	-10.219	1.00	29.81
ATOM	491	O	GLY	71	-9.875	67.163	-9.760	1.00	26.66
ATOM	492	N	LEU	72	-12.085	66.755	-9.795	1.00	28.78
ATOM	493	CA	LEU	72	-12.399	67.697	-8.742	1.00	29.10
ATOM	494	CB	LEU	72	-13.393	68.739	-9.246	1.00	28.03
ATOM	495	CG	LEU	72	-12.841	69.618	-10.364	1.00	29.44
ATOM	496	CD1	LEU	72	-13.782	70.807	-10.572	1.00	30.22
ATOM	497	CD2	LEU	72	-11.440	70.103	-10.003	1.00	28.57
ATOM	498	C	LEU	72	-12.960	67.003	-7.517	1.00	29.08
ATOM	499	O	LEU	72	-13.933	66.252	-7.600	1.00	27.03
ATOM	500	N	LEU	73	-12.338	67.275	-6.374	1.00	27.78
ATOM	501	CA	LEU	73	-12.750	66.675	-5.113	1.00	26.97
ATOM	502	CB	LEU	73	-11.681	66.924	-4.045	1.00	27.63
ATOM	503	CG	LEU	73	-10.278	66.405	-4.357	1.00	27.56
ATOM	504	CD1	LEU	73	-9.301	66.946	-3.324	1.00	27.62
ATOM	505	CD2	LEU	73	-10.283	64.882	-4.377	1.00	27.97
ATOM	506	C	LEU	73	-14.080	67.248	-4.652	1.00	25.28
ATOM	507	O	LEU	73	-14.342	68.438	-4.827	1.00	25.28
ATOM	508	N	TYR	74	-14.918	66.399	-4.064	1.00	21.91
ATOM	509	CA	TYR	74	-16.212	66.844	-3.579	1.00	18.97
ATOM	510	CB	TYR	74	-17.169	66.991	-4.755	1.00	17.95
ATOM	511	CG	TYR	74	-17.592	65.673	-5.361	1.00	16.96
ATOM	512	CD1	TYR	74	-18.741	65.008	-4.905	1.00	15.81
ATOM	513	CE1	TYR	74	-19.112	63.783	-5.424	1.00	12.54
ATOM	514	CD2	TYR	74	-16.832	65.071	-6.359	1.00	15.33
ATOM	515	CE2	TYR	74	-17.196	63.839	-6.888	1.00	14.99
ATOM	516	CZ	TYR	74	-18.336	63.206	-6.414	1.00	16.26
ATOM	517	OH	TYR	74	-18.700	61.989	-6.931	1.00	21.19
ATOM	518	C	TYR	74	-16.777	65.857	-2.562	1.00	19.47
ATOM	519	O	TYR	74	-16.400	64.686	-2.550	1.00	16.67
ATOM	520	N	GLY	75	-17.676	66.337	-1.707	1.00	19.57
ATOM	521	CA	GLY	75	-18.275	65.475	-0.707	1.00	22.20
ATOM	522	C	GLY	75	-19.448	64.718	-1.294	1.00	24.60
ATOM	523	O	GLY	75	-20.259	65.294	-2.020	1.00	27.99
ATOM	524	N	SER	76	-19.552	63.433	-0.978	1.00	22.61
ATOM	525	CA	SER	76	-20.630	62.618	-1.506	1.00	21.82
ATOM	526	CB	SER	76	-20.035	61.486	-2.348	1.00	20.60
ATOM	527	OG	SER	76	-21.048	60.702	-2.949	1.00	21.71
ATOM	528	C	SER	76	-21.533	62.056	-0.411	1.00	21.49
ATOM	529	O	SER	76	-21.073	61.376	0.490	1.00	20.33
ATOM	530	N	GLN	77	-22.826	62.335	-0.508	1.00	24.07
ATOM	531	CA	GLN	77	-23.798	61.869	0.479	1.00	28.51
ATOM	532	CB	GLN	77	-25.205	62.352	0.098	1.00	34.41
ATOM	533	CG	GLN	77	-25.326	63.863	-0.168	1.00	45.41
ATOM	534	CD	GLN	77	-24.368	64.366	-1.267	1.00	54.19
ATOM	535	OE1	GLN	77	-24.358	63.851	-2.396	1.00	55.96
ATOM	536	NE2	GLN	77	-23.560	65.379	-0.932	1.00	56.37
ATOM	537	C	GLN	77	-23.798	60.342	0.621	1.00	27.85
ATOM	538	O	GLN	77	-24.117	59.810	1.681	1.00	27.20
ATOM	539	N	THR	78	-23.453	59.645	-0.456	1.00	27.43
ATOM	540	CA	THR	78	-23.407	58.186	-0.455	1.00	27.61
ATOM	541	CB	THR	78	-24.645	57.547	-1.165	1.00	27.98
ATOM	542	OG1	THR	78	-24.739	58.046	-2.506	1.00	28.83
ATOM	543	CG2	THR	78	-25.937	57.861	-0.417	1.00	26.27
ATOM	544	C	THR	78	-22.152	57.751	-1.202	1.00	27.82

Table 2

ATOM	545	O	THR	78	-21.729	58.408	-2.150	1.00	23.73
ATOM	546	N	PRO	79	-21.549	56.624	-0.787	1.00	30.18
ATOM	547	CD	PRO	79	-22.019	55.768	0.319	1.00	30.98
ATOM	548	CA	PRO	79	-20.334	56.063	-1.388	1.00	31.93
ATOM	549	CB	PRO	79	-19.925	54.995	-0.383	1.00	30.66
ATOM	550	CG	PRO	79	-21.250	54.488	0.086	1.00	30.46
ATOM	551	C	PRO	79	-20.541	55.483	-2.783	1.00	32.59
ATOM	552	O	PRO	79	-21.607	54.966	-3.096	1.00	33.82
ATOM	553	N	ASN	80	-19.509	55.564	-3.612	1.00	33.04
ATOM	554	CA	ASN	80	-19.572	55.039	-4.971	1.00	33.28
ATOM	555	CB	ASN	80	-20.420	55.936	-5.859	1.00	29.97
ATOM	556	CG	ASN	80	-20.002	57.386	-5.784	1.00	29.20
ATOM	557	OD1	ASN	80	-20.748	58.214	-5.269	1.00	30.68
ATOM	558	ND2	ASN	80	-18.803	57.704	-6.291	1.00	23.38
ATOM	559	C	ASN	80	-18.177	54.945	-5.561	1.00	35.65
ATOM	560	O	ASN	80	-17.189	55.300	-4.909	1.00	35.39
ATOM	561	N	GLU	81	-18.104	54.480	-6.805	1.00	36.21
ATOM	562	CA	GLU	81	-16.825	54.314	-7.488	1.00	36.30
ATOM	563	CB	GLU	81	-17.071	53.887	-8.939	1.00	36.57
ATOM	564	CG	GLU	81	-18.466	54.213	-9.440	1.00	40.67
ATOM	565	CD	GLU	81	-18.543	55.520	-10.204	1.00	42.55
ATOM	566	OE1	GLU	81	-19.640	56.126	-10.222	1.00	41.85
ATOM	567	OE2	GLU	81	-17.517	55.928	-10.801	1.00	43.69
ATOM	568	C	GLU	81	-15.943	55.561	-7.425	1.00	34.33
ATOM	569	O	GLU	81	-14.705	55.467	-7.394	1.00	34.21
ATOM	570	N	GLU	82	-16.576	56.726	-7.375	1.00	31.15
ATOM	571	CA	GLU	82	-15.826	57.967	-7.317	1.00	31.48
ATOM	572	CB	GLU	82	-16.699	59.121	-7.786	1.00	32.95
ATOM	573	CG	GLU	82	-17.301	58.921	-9.159	1.00	32.36
ATOM	574	CD	GLU	82	-17.451	60.229	-9.903	1.00	33.17
ATOM	575	OE1	GLU	82	-18.079	61.161	-9.340	1.00	28.95
ATOM	576	OE2	GLU	82	-16.932	60.321	-11.045	1.00	35.17
ATOM	577	C	GLU	82	-15.273	58.283	-5.921	1.00	31.15
ATOM	578	O	GLU	82	-14.557	59.262	-5.745	1.00	29.43
ATOM	579	N	CYS	83	-15.597	57.446	-4.939	1.00	30.14
ATOM	580	CA	CYS	83	-15.146	57.650	-3.568	1.00	29.65
ATOM	581	CB	CYS	83	-16.271	57.325	-2.590	1.00	30.22
ATOM	582	SG	CYS	83	-17.782	58.220	-2.865	1.00	34.01
ATOM	583	C	CYS	83	-13.929	56.816	-3.179	1.00	30.18
ATOM	584	O	CYS	83	-13.219	57.161	-2.238	1.00	33.02
ATOM	585	N	LEU	84	-13.701	55.717	-3.888	1.00	29.32
ATOM	586	CA	LEU	84	-12.580	54.832	-3.598	1.00	28.07
ATOM	587	CB	LEU	84	-12.810	53.461	-4.231	1.00	29.59
ATOM	588	CG	LEU	84	-13.832	52.567	-3.541	1.00	30.10
ATOM	589	CD1	LEU	84	-14.063	51.344	-4.380	1.00	30.11
ATOM	590	CD2	LEU	84	-13.332	52.186	-2.156	1.00	31.23
ATOM	591	C	LEU	84	-11.233	55.361	-4.057	1.00	27.57
ATOM	592	O	LEU	84	-11.047	55.711	-5.228	1.00	26.72
ATOM	593	N	PHE	85	-10.289	55.390	-3.122	1.00	24.59
ATOM	594	CA	PHE	85	-8.946	55.860	-3.405	1.00	24.16
ATOM	595	CB	PHE	85	-8.681	57.157	-2.635	1.00	23.67
ATOM	596	CG	PHE	85	-9.458	58.333	-3.148	1.00	22.06
ATOM	597	CD1	PHE	85	-8.978	59.084	-4.220	1.00	22.74
ATOM	598	CD2	PHE	85	-10.694	58.658	-2.598	1.00	17.88
ATOM	599	CE1	PHE	85	-9.723	60.139	-4.738	1.00	18.93
ATOM	600	CE2	PHE	85	-11.443	59.703	-3.106	1.00	15.03
ATOM	601	CZ	PHE	85	-10.959	60.445	-4.178	1.00	17.54
ATOM	602	C	PHE	85	-7.887	54.819	-3.043	1.00	25.51
ATOM	603	O	PHE	85	-8.044	54.032	-2.096	1.00	25.66
ATOM	604	N	LEU	86	-6.805	54.818	-3.814	1.00	24.59
ATOM	605	CA	LEU	86	-5.707	53.905	-3.579	1.00	23.48

Table 2

ATOM	606	CB	LEU	86	-5.006	53.591	-4.891	1.00	21.27
ATOM	607	CG	LEU	86	-5.915	52.794	-5.824	1.00	21.04
ATOM	608	CD1	LEU	86	-5.175	52.438	-7.087	1.00	19.70
ATOM	609	CD2	LEU	86	-6.395	51.541	-5.105	1.00	19.85
ATOM	610	C	LEU	86	-4.750	54.566	-2.614	1.00	25.62
ATOM	611	O	LEU	86	-4.183	55.615	-2.925	1.00	25.42
ATOM	612	N	GLU	87	-4.594	53.963	-1.436	1.00	26.44
ATOM	613	CA	GLU	87	-3.709	54.504	-0.412	1.00	28.40
ATOM	614	CB	GLU	87	-4.317	54.301	0.985	1.00	27.98
ATOM	615	CG	GLU	87	-3.463	54.875	2.145	1.00	26.64
ATOM	616	CD	GLU	87	-4.014	54.511	3.515	1.00	23.94
ATOM	617	OE1	GLU	87	-4.073	53.307	3.829	1.00	27.96
ATOM	618	OE2	GLU	87	-4.398	55.416	4.281	1.00	21.92
ATOM	619	C	GLU	87	-2.330	53.860	-0.465	1.00	28.13
ATOM	620	O	GLU	87	-2.203	52.640	-0.421	1.00	30.05
ATOM	621	N	ARG	88	-1.296	54.681	-0.571	1.00	27.67
ATOM	622	CA	ARG	88	0.050	54.147	-0.598	1.00	31.22
ATOM	623	CB	ARG	88	0.628	54.133	-2.018	1.00	34.68
ATOM	624	CG	ARG	88	1.956	53.371	-2.084	1.00	41.67
ATOM	625	CD	ARG	88	2.837	53.733	-3.277	1.00	45.98
ATOM	626	NE	ARG	88	4.232	53.379	-3.000	1.00	51.46
ATOM	627	CZ	ARG	88	5.283	53.843	-3.676	1.00	54.59
ATOM	628	NH1	ARG	88	5.107	54.689	-4.689	1.00	55.27
ATOM	629	NH2	ARG	88	6.513	53.476	-3.326	1.00	52.53
ATOM	630	C	ARG	88	0.976	54.949	0.303	1.00	30.54
ATOM	631	O	ARG	88	1.063	56.180	0.195	1.00	30.76
ATOM	632	N	LEU	89	1.650	54.239	1.204	1.00	27.05
ATOM	633	CA	LEU	89	2.604	54.857	2.108	1.00	25.80
ATOM	634	CB	LEU	89	2.762	54.006	3.374	1.00	26.00
ATOM	635	CG	LEU	89	3.853	54.360	4.399	1.00	25.93
ATOM	636	CD1	LEU	89	4.031	55.866	4.547	1.00	24.56
ATOM	637	CD2	LEU	89	3.474	53.740	5.727	1.00	26.66
ATOM	638	C	LEU	89	3.918	54.929	1.343	1.00	22.78
ATOM	639	O	LEU	89	4.587	53.927	1.166	1.00	23.03
ATOM	640	N	GLU	90	4.278	56.118	0.883	1.00	23.05
ATOM	641	CA	GLU	90	5.501	56.296	0.114	1.00	25.74
ATOM	642	CB	GLU	90	5.505	57.670	-0.559	1.00	26.96
ATOM	643	CG	GLU	90	4.231	58.018	-1.346	1.00	30.37
ATOM	644	CD	GLU	90	3.883	56.999	-2.421	1.00	30.68
ATOM	645	OE1	GLU	90	4.736	56.728	-3.292	1.00	32.66
ATOM	646	OE2	GLU	90	2.750	56.475	-2.396	1.00	31.43
ATOM	647	C	GLU	90	6.804	56.128	0.901	1.00	27.47
ATOM	648	O	GLU	90	6.842	56.149	2.137	1.00	26.96
ATOM	649	N	GLU	91	7.880	55.961	0.153	1.00	28.46
ATOM	650	CA	GLU	91	9.197	55.802	0.733	1.00	30.58
ATOM	651	CB	GLU	91	10.204	55.557	-0.388	1.00	36.00
ATOM	652	CG	GLU	91	9.820	54.367	-1.251	1.00	44.17
ATOM	653	CD	GLU	91	10.713	54.198	-2.463	1.00	49.46
ATOM	654	OE1	GLU	91	10.435	53.284	-3.277	1.00	50.63
ATOM	655	OE2	GLU	91	11.687	54.977	-2.601	1.00	52.77
ATOM	656	C	GLU	91	9.573	57.040	1.542	1.00	27.34
ATOM	657	O	GLU	91	10.241	56.941	2.567	1.00	28.42
ATOM	658	N	ASN	92	9.132	58.202	1.079	1.00	24.91
ATOM	659	CA	ASN	92	9.405	59.460	1.757	1.00	22.31
ATOM	660	CB	ASN	92	9.064	60.616	0.840	1.00	20.97
ATOM	661	CG	ASN	92	7.571	60.779	0.650	1.00	23.29
ATOM	662	OD1	ASN	92	6.778	59.874	0.965	1.00	22.87
ATOM	663	ND2	ASN	92	7.171	61.935	0.130	1.00	21.91
ATOM	664	C	ASN	92	8.558	59.551	3.027	1.00	23.86
ATOM	665	O	ASN	92	8.481	60.600	3.666	1.00	25.03
ATOM	666	N	HIS	93	7.899	58.447	3.358	1.00	23.09

Table 2

ATOM	667	CA	HIS	93	7.086	58.339	4.559	1.00	22.39
ATOM	668	CB	HIS	93	7.945	58.601	5.793	1.00	23.17
ATOM	669	CG	HIS	93	8.847	57.461	6.137	1.00	26.20
ATOM	670	CD2	HIS	93	9.770	57.312	7.114	1.00	30.14
ATOM	671	ND1	HIS	93	8.841	56.276	5.432	1.00	29.43
ATOM	672	CE1	HIS	93	9.723	55.446	5.959	1.00	28.79
ATOM	673	NE2	HIS	93	10.301	56.049	6.982	1.00	30.20
ATOM	674	C	HIS	93	5.825	59.166	4.612	1.00	22.28
ATOM	675	O	HIS	93	5.259	59.406	5.688	1.00	20.33
ATOM	676	N	TYR	94	5.372	59.585	3.440	1.00	22.58
ATOM	677	CA	TYR	94	4.141	60.348	3.345	1.00	20.96
ATOM	678	CB	TYR	94	4.348	61.593	2.489	1.00	18.29
ATOM	679	CG	TYR	94	4.940	62.749	3.243	1.00	16.89
ATOM	680	CD1	TYR	94	4.159	63.484	4.136	1.00	17.65
ATOM	681	CE1	TYR	94	4.707	64.543	4.861	1.00	16.95
ATOM	682	CD2	TYR	94	6.293	63.098	3.090	1.00	13.56
ATOM	683	CE2	TYR	94	6.849	64.146	3.808	1.00	10.87
ATOM	684	CZ	TYR	94	6.048	64.863	4.691	1.00	13.37
ATOM	685	OH	TYR	94	6.555	65.916	5.399	1.00	15.56
ATOM	686	C	TYR	94	3.125	59.438	2.682	1.00	21.15
ATOM	687	O	TYR	94	3.482	58.394	2.130	1.00	18.49
ATOM	688	N	ASN	95	1.859	59.827	2.757	1.00	20.46
ATOM	689	CA	ASN	95	0.801	59.067	2.119	1.00	20.78
ATOM	690	CB	ASN	95	-0.413	58.915	3.033	1.00	18.65
ATOM	691	CG	ASN	95	-0.316	57.709	3.915	1.00	22.19
ATOM	692	OD1	ASN	95	0.564	56.848	3.716	1.00	22.07
ATOM	693	ND2	ASN	95	-1.225	57.616	4.899	1.00	13.47
ATOM	694	C	ASN	95	0.345	59.806	0.880	1.00	22.07
ATOM	695	O	ASN	95	0.415	61.040	0.806	1.00	24.43
ATOM	696	N	THR	96	-0.104	59.050	-0.107	1.00	19.08
ATOM	697	CA	THR	96	-0.648	59.654	-1.301	1.00	17.85
ATOM	698	CB	THR	96	0.293	59.564	-2.494	1.00	13.90
ATOM	699	OG1	THR	96	0.627	58.194	-2.733	1.00	16.54
ATOM	700	CG2	THR	96	1.534	60.388	-2.245	1.00	8.64
ATOM	701	C	THR	96	-1.905	58.870	-1.604	1.00	19.75
ATOM	702	O	THR	96	-1.952	57.656	-1.398	1.00	19.27
ATOM	703	N	TYR	97	-2.931	59.573	-2.065	1.00	21.57
ATOM	704	CA	TYR	97	-4.188	58.932	-2.400	1.00	23.58
ATOM	705	CB	TYR	97	-5.283	59.469	-1.485	1.00	23.44
ATOM	706	CG	TYR	97	-5.031	59.152	-0.029	1.00	25.02
ATOM	707	CD1	TYR	97	-5.403	57.918	0.511	1.00	26.72
ATOM	708	CE1	TYR	97	-5.157	57.610	1.851	1.00	25.40
ATOM	709	CD2	TYR	97	-4.399	60.076	0.810	1.00	24.77
ATOM	710	CE2	TYR	97	-4.149	59.781	2.145	1.00	23.43
ATOM	711	CZ	TYR	97	-4.532	58.547	2.660	1.00	25.51
ATOM	712	OH	TYR	97	-4.299	58.253	3.984	1.00	25.72
ATOM	713	C	TYR	97	-4.521	59.184	-3.871	1.00	25.49
ATOM	714	O	TYR	97	-4.761	60.322	-4.281	1.00	26.61
ATOM	715	N	ILE	98	-4.501	58.116	-4.662	1.00	26.27
ATOM	716	CA	ILE	98	-4.807	58.199	-6.083	1.00	25.07
ATOM	717	CB	ILE	98	-3.864	57.292	-6.913	1.00	26.82
ATOM	718	CG2	ILE	98	-4.420	57.106	-8.333	1.00	26.59
ATOM	719	CG1	ILE	98	-2.457	57.905	-6.933	1.00	29.67
ATOM	720	CD1	ILE	98	-1.412	57.093	-7.682	1.00	29.38
ATOM	721	C	ILE	98	-6.239	57.757	-6.333	1.00	24.20
ATOM	722	O	ILE	98	-6.703	56.784	-5.739	1.00	21.30
ATOM	723	N	SER	99	-6.934	58.485	-7.205	1.00	25.81
ATOM	724	CA	SER	99	-8.312	58.143	-7.564	1.00	25.53
ATOM	725	CB	SER	99	-8.845	59.082	-8.644	1.00	24.28
ATOM	726	OG	SER	99	-9.827	58.425	-9.419	1.00	25.10
ATOM	727	C	SER	99	-8.310	56.729	-8.115	1.00	26.04

Table 2

ATOM	728	O	SER	99	-7.602	56.432	-9.084	1.00	23.70
ATOM	729	N	LYS	100	-9.101	55.863	-7.491	1.00	27.88
ATOM	730	CA	LYS	100	-9.195	54.468	-7.903	1.00	27.72
ATOM	731	CB	LYS	100	-10.045	53.687	-6.897	1.00	26.37
ATOM	732	CG	LYS	100	-9.848	52.176	-6.908	1.00	25.42
ATOM	733	CD	LYS	100	-10.364	51.544	-8.171	1.00	23.12
ATOM	734	CE	LYS	100	-10.292	50.028	-8.091	1.00	26.78
ATOM	735	NZ	LYS	100	-11.136	49.473	-6.995	1.00	27.99
ATOM	736	C	LYS	100	-9.809	54.391	-9.293	1.00	28.12
ATOM	737	O	LYS	100	-9.402	53.571	-10.113	1.00	27.55
ATOM	738	N	LYS	101	-10.777	55.264	-9.552	1.00	30.25
ATOM	739	CA	LYS	101	-11.454	55.297	-10.840	1.00	34.17
ATOM	740	CB	LYS	101	-12.770	56.070	-10.720	1.00	36.86
ATOM	741	CG	LYS	101	-13.554	56.186	-12.025	1.00	37.77
ATOM	742	CD	LYS	101	-14.802	57.027	-11.843	1.00	38.43
ATOM	743	CE	LYS	101	-15.534	57.241	-13.161	1.00	39.99
ATOM	744	NZ	LYS	101	-16.726	58.124	-12.996	1.00	39.40
ATOM	745	C	LYS	101	-10.604	55.923	-11.943	1.00	34.72
ATOM	746	O	LYS	101	-10.696	55.536	-13.102	1.00	35.47
ATOM	747	N	HIS	102	-9.780	56.895	-11.591	1.00	34.55
ATOM	748	CA	HIS	102	-8.955	57.543	-12.596	1.00	36.40
ATOM	749	CB	HIS	102	-9.241	59.048	-12.584	1.00	40.56
ATOM	750	CG	HIS	102	-10.628	59.392	-13.040	1.00	44.63
ATOM	751	CD2	HIS	102	-11.758	59.655	-12.340	1.00	45.60
ATOM	752	ND1	HIS	102	-10.983	59.438	-14.372	1.00	47.62
ATOM	753	CE1	HIS	102	-12.272	59.715	-14.472	1.00	49.39
ATOM	754	NE2	HIS	102	-12.766	59.851	-13.253	1.00	48.16
ATOM	755	C	HIS	102	-7.471	57.249	-12.393	1.00	35.09
ATOM	756	O	HIS	102	-6.604	58.097	-12.635	1.00	30.28
ATOM	757	N	ALA	103	-7.198	56.019	-11.962	1.00	35.43
ATOM	758	CA	ALA	103	-5.842	55.561	-11.705	1.00	37.35
ATOM	759	CB	ALA	103	-5.871	54.138	-11.211	1.00	34.67
ATOM	760	C	ALA	103	-4.948	55.666	-12.934	1.00	39.11
ATOM	761	O	ALA	103	-3.886	56.287	-12.887	1.00	41.02
ATOM	762	N	GLU	104	-5.382	55.046	-14.025	1.00	40.77
ATOM	763	CA	GLU	104	-4.641	55.059	-15.282	1.00	40.86
ATOM	764	CB	GLU	104	-5.591	54.695	-16.422	1.00	43.20
ATOM	765	CG	GLU	104	-5.130	55.168	-17.787	1.00	49.96
ATOM	766	CD	GLU	104	-6.293	55.507	-18.713	1.00	52.78
ATOM	767	OE1	GLU	104	-6.045	56.087	-19.796	1.00	52.63
ATOM	768	OE2	GLU	104	-7.453	55.194	-18.357	1.00	53.57
ATOM	769	C	GLU	104	-3.971	56.408	-15.569	1.00	39.23
ATOM	770	O	GLU	104	-2.804	56.462	-15.944	1.00	38.66
ATOM	771	N	LYS	105	-4.714	57.493	-15.390	1.00	39.54
ATOM	772	CA	LYS	105	-4.192	58.833	-15.641	1.00	38.83
ATOM	773	CB	LYS	105	-5.345	59.814	-15.842	1.00	35.41
ATOM	774	CG	LYS	105	-6.562	59.186	-16.484	1.00	34.90
ATOM	775	CD	LYS	105	-7.832	59.953	-16.147	1.00	36.61
ATOM	776	CE	LYS	105	-9.058	59.174	-16.584	1.00	37.07
ATOM	777	NZ	LYS	105	-8.974	57.765	-16.092	1.00	38.64
ATOM	778	C	LYS	105	-3.340	59.314	-14.473	1.00	39.73
ATOM	779	O	LYS	105	-2.691	60.350	-14.564	1.00	42.17
ATOM	780	N	ASN	106	-3.345	58.568	-13.375	1.00	39.76
ATOM	781	CA	ASN	106	-2.586	58.962	-12.194	1.00	41.17
ATOM	782	CB	ASN	106	-1.099	59.080	-12.538	1.00	41.89
ATOM	783	CG	ASN	106	-0.386	57.741	-12.474	1.00	45.65
ATOM	784	OD1	ASN	106	0.626	57.531	-13.143	1.00	48.02
ATOM	785	ND2	ASN	106	-0.908	56.827	-11.653	1.00	44.93
ATOM	786	C	ASN	106	-3.117	60.279	-11.625	1.00	39.74
ATOM	787	O	ASN	106	-2.413	61.281	-11.557	1.00	39.43
ATOM	788	N	TRP	107	-4.379	60.254	-11.222	1.00	39.27

Table 2

ATOM	789	CA	TRP	107	-5.051	61.412	-10.651	1.00	39.02
ATOM	790	CB	TRP	107	-6.515	61.410	-11.096	1.00	42.22
ATOM	791	CG	TRP	107	-6.733	62.007	-12.451	1.00	45.87
ATOM	792	CD2	TRP	107	-7.984	62.429	-13.008	1.00	47.87
ATOM	793	CE2	TRP	107	-7.713	62.964	-14.286	1.00	48.19
ATOM	794	CE3	TRP	107	-9.311	62.407	-12.549	1.00	46.97
ATOM	795	CD1	TRP	107	-5.782	62.290	-13.391	1.00	45.43
ATOM	796	NE1	TRP	107	-6.362	62.869	-14.494	1.00	45.12
ATOM	797	CZ2	TRP	107	-8.723	63.475	-15.113	1.00	49.27
ATOM	798	CZ3	TRP	107	-10.313	62.916	-13.370	1.00	46.53
ATOM	799	CH2	TRP	107	-10.012	63.442	-14.638	1.00	47.09
ATOM	800	C	TRP	107	-4.958	61.385	-9.123	1.00	36.02
ATOM	801	O	TRP	107	-5.563	60.537	-8.466	1.00	32.66
ATOM	802	N	PHE	108	-4.205	62.322	-8.560	1.00	33.43
ATOM	803	CA	PHE	108	-4.021	62.364	-7.118	1.00	29.53
ATOM	804	CB	PHE	108	-2.617	62.854	-6.747	1.00	25.07
ATOM	805	CG	PHE	108	-1.501	62.011	-7.278	1.00	24.26
ATOM	806	CD1	PHE	108	-0.959	62.263	-8.544	1.00	20.53
ATOM	807	CD2	PHE	108	-0.965	60.982	-6.502	1.00	23.65
ATOM	808	CE1	PHE	108	0.098	61.511	-9.030	1.00	19.10
ATOM	809	CE2	PHE	108	0.098	60.215	-6.977	1.00	23.67
ATOM	810	CZ	PHE	108	0.632	60.481	-8.248	1.00	24.38
ATOM	811	C	PHE	108	-4.990	63.268	-6.394	1.00	29.53
ATOM	812	O	PHE	108	-5.611	64.150	-6.991	1.00	28.70
ATOM	813	N	VAL	109	-5.095	63.021	-5.087	1.00	28.71
ATOM	814	CA	VAL	109	-5.885	63.833	-4.181	1.00	28.24
ATOM	815	CB	VAL	109	-6.384	63.036	-2.966	1.00	28.28
ATOM	816	CG1	VAL	109	-6.582	63.972	-1.794	1.00	28.81
ATOM	817	CG2	VAL	109	-7.703	62.347	-3.289	1.00	29.67
ATOM	818	C	VAL	109	-4.791	64.776	-3.712	1.00	28.77
ATOM	819	O	VAL	109	-3.783	64.334	-3.162	1.00	30.15
ATOM	820	N	GLY	110	-4.957	66.065	-3.959	1.00	28.53
ATOM	821	CA	GLY	110	-3.926	66.997	-3.552	1.00	27.81
ATOM	822	C	GLY	110	-4.525	68.296	-3.079	1.00	27.32
ATOM	823	O	GLY	110	-5.745	68.448	-3.043	1.00	27.33
ATOM	824	N	LEU	111	-3.667	69.237	-2.711	1.00	25.62
ATOM	825	CA	LEU	111	-4.128	70.530	-2.246	1.00	25.47
ATOM	826	CB	LEU	111	-4.374	70.482	-0.738	1.00	25.49
ATOM	827	CG	LEU	111	-5.595	69.678	-0.277	1.00	25.80
ATOM	828	CD1	LEU	111	-5.407	69.184	1.157	1.00	21.96
ATOM	829	CD2	LEU	111	-6.845	70.561	-0.400	1.00	24.98
ATOM	830	C	LEU	111	-3.069	71.556	-2.601	1.00	26.94
ATOM	831	O	LEU	111	-1.868	71.270	-2.575	1.00	25.36
ATOM	832	N	LYS	112	-3.519	72.757	-2.938	1.00	29.56
ATOM	833	CA	LYS	112	-2.613	73.825	-3.335	1.00	31.20
ATOM	834	CB	LYS	112	-3.305	74.708	-4.370	1.00	34.94
ATOM	835	CG	LYS	112	-3.551	74.027	-5.697	1.00	35.87
ATOM	836	CD	LYS	112	-4.189	74.997	-6.675	1.00	39.81
ATOM	837	CE	LYS	112	-3.450	75.001	-8.006	1.00	43.47
ATOM	838	NZ	LYS	112	-4.076	75.931	-8.996	1.00	46.95
ATOM	839	C	LYS	112	-2.091	74.695	-2.190	1.00	29.91
ATOM	840	O	LYS	112	-2.672	74.727	-1.111	1.00	27.10
ATOM	841	N	LYS	113	-0.996	75.405	-2.456	1.00	29.29
ATOM	842	CA	LYS	113	-0.371	76.294	-1.485	1.00	31.65
ATOM	843	CB	LYS	113	0.510	77.311	-2.198	1.00	33.37
ATOM	844	CG	LYS	113	1.824	76.744	-2.686	1.00	37.28
ATOM	845	CD	LYS	113	2.788	76.487	-1.544	1.00	37.50
ATOM	846	CE	LYS	113	3.602	75.225	-1.785	1.00	39.66
ATOM	847	NZ	LYS	113	4.235	75.174	-3.133	1.00	40.46
ATOM	848	C	LYS	113	-1.354	77.040	-0.599	1.00	32.81
ATOM	849	O	LYS	113	-1.047	77.354	0.544	1.00	34.94

Table 2

ATOM	2741	OG	SER	2238	12.004	91.061	19.554	1.00	33.65
ATOM	2742	C	SER	2238	10.549	92.368	17.619	1.00	24.16
ATOM	2743	O	SER	2238	9.478	92.735	18.094	1.00	24.16
ATOM	2744	N	ILE	2239	10.636	91.443	16.679	1.00	25.17
ATOM	2745	CA	ILE	2239	9.438	90.793	16.174	1.00	25.95
ATOM	2746	CB	ILE	2239	9.250	91.054	14.643	1.00	23.90
ATOM	2747	CG2	ILE	2239	9.041	92.538	14.405	1.00	22.25
ATOM	2748	CG1	ILE	2239	10.477	90.591	13.845	1.00	22.27
ATOM	2749	CD1	ILE	2239	10.375	90.865	12.338	1.00	15.87
ATOM	2750	C	ILE	2239	9.606	89.314	16.463	1.00	26.02
ATOM	2751	O	ILE	2239	10.711	88.860	16.730	1.00	26.85
ATOM	2752	N	ASN	2240	8.515	88.566	16.440	1.00	27.54
ATOM	2753	CA	ASN	2240	8.599	87.137	16.708	1.00	28.36
ATOM	2754	CB	ASN	2240	8.358	86.858	18.184	1.00	31.11
ATOM	2755	CG	ASN	2240	7.026	87.392	18.654	1.00	34.41
ATOM	2756	OD1	ASN	2240	6.017	87.293	17.950	1.00	39.95
ATOM	2757	ND2	ASN	2240	7.008	87.958	19.852	1.00	36.18
ATOM	2758	C	ASN	2240	7.577	86.360	15.898	1.00	27.32
ATOM	2759	O	ASN	2240	6.670	86.931	15.289	1.00	26.19
ATOM	2760	N	HIS	2241	7.728	85.045	15.909	1.00	26.23
ATOM	2761	CA	HIS	2241	6.823	84.174	15.183	1.00	24.63
ATOM	2762	CB	HIS	2241	7.191	84.145	13.698	1.00	27.93
ATOM	2763	CG	HIS	2241	6.198	83.418	12.851	1.00	29.56
ATOM	2764	CD2	HIS	2241	6.302	82.271	12.141	1.00	30.41
ATOM	2765	ND1	HIS	2241	4.894	83.840	12.708	1.00	28.42
ATOM	2766	CE1	HIS	2241	4.237	82.984	11.950	1.00	28.77
ATOM	2767	NE2	HIS	2241	5.069	82.021	11.593	1.00	30.81
ATOM	2768	C	HIS	2241	6.977	82.798	15.775	1.00	20.79
ATOM	2769	O	HIS	2241	8.080	82.406	16.124	1.00	23.73
ATOM	2770	N	THR	2242	5.883	82.068	15.905	1.00	18.57
ATOM	2771	CA	THR	2242	5.967	80.732	16.469	1.00	19.34
ATOM	2772	CB	THR	2242	5.175	80.606	17.786	1.00	18.92
ATOM	2773	OG1	THR	2242	5.654	81.569	18.737	1.00	19.94
ATOM	2774	CG2	THR	2242	5.351	79.197	18.370	1.00	16.55
ATOM	2775	C	THR	2242	5.441	79.678	15.515	1.00	19.37
ATOM	2776	O	THR	2242	4.439	79.889	14.846	1.00	19.56
ATOM	2777	N	TYR	2243	6.131	78.545	15.467	1.00	19.59
ATOM	2778	CA	TYR	2243	5.744	77.426	14.626	1.00	18.65
ATOM	2779	CB	TYR	2243	6.871	77.032	13.671	1.00	18.22
ATOM	2780	CG	TYR	2243	7.181	78.003	12.559	1.00	21.98
ATOM	2781	CD1	TYR	2243	8.262	78.879	12.653	1.00	26.03
ATOM	2782	CE1	TYR	2243	8.585	79.749	11.605	1.00	27.45
ATOM	2783	CD2	TYR	2243	6.421	78.020	11.392	1.00	22.51
ATOM	2784	CE2	TYR	2243	6.728	78.879	10.336	1.00	23.43
ATOM	2785	CZ	TYR	2243	7.808	79.745	10.445	1.00	27.97
ATOM	2786	OH	TYR	2243	8.102	80.614	9.403	1.00	26.48
ATOM	2787	C	TYR	2243	5.439	76.206	15.489	1.00	20.69
ATOM	2788	O	TYR	2243	6.165	75.904	16.432	1.00	20.77
ATOM	2789	N	ALA	2244	4.364	75.494	15.171	1.00	24.28
ATOM	2790	CA	ALA	2244	4.044	74.268	15.904	1.00	24.29
ATOM	2791	CB	ALA	2244	2.528	74.036	15.923	1.00	21.88
ATOM	2792	C	ALA	2244	4.749	73.145	15.132	1.00	23.11
ATOM	2793	O	ALA	2244	4.847	73.204	13.903	1.00	22.54
ATOM	2794	N	LEU	2245	5.286	72.155	15.831	1.00	21.86
ATOM	2795	CA	LEU	2245	5.922	71.053	15.122	1.00	22.62
ATOM	2796	CB	LEU	2245	7.443	71.051	15.287	1.00	18.99
ATOM	2797	CG	LEU	2245	8.147	70.207	14.204	1.00	17.70
ATOM	2798	CD1	LEU	2245	9.642	70.451	14.227	1.00	21.67
ATOM	2799	CD2	LEU	2245	7.870	68.761	14.398	1.00	12.29
ATOM	2800	C	LEU	2245	5.362	69.730	15.612	1.00	24.97
ATOM	2801	O	LEU	2245	5.443	69.393	16.801	1.00	26.93

Table 2

ATOM	2802	N	ASP	2246	4.769	68.982	14.698	1.00	23.77
ATOM	2803	CA	ASP	2246	4.244	67.695	15.080	1.00	26.78
ATOM	2804	CB	ASP	2246	2.742	67.632	14.827	1.00	32.54
ATOM	2805	CG	ASP	2246	2.116	66.391	15.412	1.00	38.06
ATOM	2806	OD1	ASP	2246	2.401	66.068	16.586	1.00	43.40
ATOM	2807	OD2	ASP	2246	1.334	65.733	14.700	1.00	43.40
ATOM	2808	C	ASP	2246	4.989	66.639	14.283	1.00	24.87
ATOM	2809	O	ASP	2246	5.301	66.843	13.109	1.00	24.14
ATOM	2810	N	VAL	2247	5.289	65.523	14.939	1.00	23.50
ATOM	2811	CA	VAL	2247	6.026	64.419	14.326	1.00	22.60
ATOM	2812	CB	VAL	2247	7.394	64.245	15.014	1.00	24.33
ATOM	2813	CG1	VAL	2247	8.164	63.064	14.404	1.00	22.90
ATOM	2814	CG2	VAL	2247	8.190	65.548	14.897	1.00	25.31
ATOM	2815	C	VAL	2247	5.250	63.123	14.457	1.00	20.96
ATOM	2816	O	VAL	2247	4.716	62.831	15.518	1.00	23.24
ATOM	2817	N	VAL	2248	5.185	62.342	13.385	1.00	21.02
ATOM	2818	CA	VAL	2248	4.459	61.071	13.428	1.00	20.10
ATOM	2819	CB	VAL	2248	3.209	61.096	12.523	1.00	22.52
ATOM	2820	CG1	VAL	2248	2.433	59.817	12.680	1.00	24.17
ATOM	2821	CG2	VAL	2248	2.337	62.271	12.875	1.00	24.94
ATOM	2822	C	VAL	2248	5.336	59.929	12.960	1.00	18.71
ATOM	2823	O	VAL	2248	5.854	59.952	11.843	1.00	17.85
ATOM	2824	N	GLU	2249	5.499	58.931	13.821	1.00	19.07
ATOM	2825	CA	GLU	2249	6.306	57.763	13.491	1.00	20.26
ATOM	2826	CB	GLU	2249	6.647	56.980	14.764	1.00	23.63
ATOM	2827	CG	GLU	2249	7.421	57.804	15.789	1.00	29.31
ATOM	2828	CD	GLU	2249	7.621	57.095	17.110	1.00	30.62
ATOM	2829	OE1	GLU	2249	6.622	56.608	17.688	1.00	31.42
ATOM	2830	OE2	GLU	2249	8.783	57.043	17.573	1.00	35.73
ATOM	2831	C	GLU	2249	5.478	56.904	12.553	1.00	20.02
ATOM	2832	O	GLU	2249	4.380	56.483	12.910	1.00	21.25
ATOM	2833	N	ARG	2250	5.991	56.667	11.348	1.00	19.31
ATOM	2834	CA	ARG	2250	5.282	55.855	10.358	1.00	19.27
ATOM	2835	CB	ARG	2250	5.516	56.389	8.929	1.00	14.30
ATOM	2836	CG	ARG	2250	5.039	57.822	8.660	1.00	12.43
ATOM	2837	CD	ARG	2250	3.621	58.089	9.162	1.00	12.56
ATOM	2838	NE	ARG	2250	2.601	57.339	8.431	1.00	16.48
ATOM	2839	CZ	ARG	2250	2.203	57.609	7.189	1.00	18.36
ATOM	2840	NH1	ARG	2250	2.729	58.622	6.501	1.00	14.94
ATOM	2841	NH2	ARG	2250	1.277	56.851	6.627	1.00	18.04
ATOM	2842	C	ARG	2250	5.732	54.396	10.443	1.00	20.00
ATOM	2843	O	ARG	2250	6.919	54.122	10.617	1.00	21.86
ATOM	2844	N	ALA	2251	4.788	53.464	10.309	1.00	19.84
ATOM	2845	CA	ALA	2251	5.104	52.039	10.388	1.00	17.49
ATOM	2846	CB	ALA	2251	4.314	51.415	11.554	1.00	15.22
ATOM	2847	C	ALA	2251	4.814	51.289	9.076	1.00	17.93
ATOM	2848	O	ALA	2251	3.702	50.785	8.898	1.00	19.93
ATOM	2849	N	PRO	2252	5.806	51.225	8.132	1.00	19.12
ATOM	2850	CD	PRO	2252	7.021	52.074	8.124	1.00	16.50
ATOM	2851	CA	PRO	2252	5.671	50.538	6.829	1.00	17.21
ATOM	2852	CB	PRO	2252	6.666	51.290	5.945	1.00	16.08
ATOM	2853	CG	PRO	2252	7.780	51.571	6.901	1.00	13.86
ATOM	2854	C	PRO	2252	5.948	49.025	6.834	1.00	17.45
ATOM	2855	O	PRO	2252	6.942	48.554	6.280	1.00	17.02
ATOM	2856	N	HIS	2253	5.056	48.272	7.463	1.00	18.62
ATOM	2857	CA	HIS	2253	5.165	46.822	7.543	1.00	20.04
ATOM	2858	CB	HIS	2253	5.589	46.388	8.951	1.00	24.45
ATOM	2859	CG	HIS	2253	6.666	47.238	9.545	1.00	29.28
ATOM	2860	CD2	HIS	2253	6.641	48.105	10.585	1.00	28.96
ATOM	2861	ND1	HIS	2253	7.938	47.313	9.010	1.00	30.02
ATOM	2862	CE1	HIS	2253	8.646	48.197	9.691	1.00	29.21

Table 2

ATOM	2924	C	LEU	2261	-6.034	35.674	17.574	1.00	19.70
ATOM	2925	O	LEU	2261	-5.152	36.057	16.805	1.00	20.74
ATOM	2926	N	PRO	2262	-7.111	34.998	17.139	1.00	17.08
ATOM	2927	CD	PRO	2262	-7.354	34.649	15.729	1.00	16.05
ATOM	2928	CA	PRO	2262	-8.192	34.503	17.999	1.00	16.51
ATOM	2929	CB	PRO	2262	-9.293	34.169	17.001	1.00	14.07
ATOM	2930	CG	PRO	2262	-8.508	33.673	15.828	1.00	16.76
ATOM	2931	C	PRO	2262	-7.704	33.285	18.762	1.00	17.26
ATOM	2932	O	PRO	2262	-6.675	32.708	18.415	1.00	20.94
ATOM	2933	N	ALA	2263	-8.426	32.893	19.800	1.00	15.69
ATOM	2934	CA	ALA	2263	-8.027	31.734	20.592	1.00	14.01
ATOM	2935	CB	ALA	2263	-7.831	32.151	22.060	1.00	7.68
ATOM	2936	C	ALA	2263	-9.059	30.602	20.496	1.00	13.49
ATOM	2937	O	ALA	2263	-10.267	30.852	20.374	1.00	11.10
ATOM	2938	N	ASN	2264	-8.579	29.364	20.547	1.00	13.00
ATOM	2939	CA	ASN	2264	-9.467	28.212	20.492	1.00	15.21
ATOM	2940	CB	ASN	2264	-8.732	26.932	20.806	1.00	9.73
ATOM	2941	CG	ASN	2264	-7.559	26.746	19.947	1.00	13.05
ATOM	2942	OD1	ASN	2264	-7.503	27.281	18.833	1.00	18.74
ATOM	2943	ND2	ASN	2264	-6.598	25.977	20.428	1.00	12.71
ATOM	2944	C	ASN	2264	-10.583	28.339	21.495	1.00	19.33
ATOM	2945	O	ASN	2264	-10.459	29.022	22.503	1.00	19.67
ATOM	2946	N	LYS	2265	-11.674	27.649	21.212	1.00	24.50
ATOM	2947	CA	LYS	2265	-12.814	27.669	22.085	1.00	27.32
ATOM	2948	CB	LYS	2265	-13.738	28.819	21.721	1.00	28.46
ATOM	2949	CG	LYS	2265	-13.241	30.174	22.150	1.00	32.13
ATOM	2950	CD	LYS	2265	-14.378	30.948	22.789	1.00	36.02
ATOM	2951	CE	LYS	2265	-14.977	30.158	23.950	1.00	36.92
ATOM	2952	NZ	LYS	2265	-16.151	30.833	24.580	1.00	40.08
ATOM	2953	C	LYS	2265	-13.553	26.367	21.930	1.00	30.50
ATOM	2954	O	LYS	2265	-13.573	25.776	20.848	1.00	31.20
ATOM	2955	N	THR	2266	-14.133	25.915	23.035	1.00	33.40
ATOM	2956	CA	THR	2266	-14.928	24.699	23.073	1.00	32.79
ATOM	2957	CB	THR	2266	-14.324	23.639	24.013	1.00	31.95
ATOM	2958	OG1	THR	2266	-13.009	23.280	23.567	1.00	30.70
ATOM	2959	CG2	THR	2266	-15.182	22.396	24.019	1.00	34.16
ATOM	2960	C	THR	2266	-16.248	25.197	23.642	1.00	34.06
ATOM	2961	O	THR	2266	-16.261	25.945	24.619	1.00	33.77
ATOM	2962	N	VAL	2267	-17.354	24.816	23.012	1.00	35.60
ATOM	2963	CA	VAL	2267	-18.670	25.249	23.463	1.00	35.90
ATOM	2964	CB	VAL	2267	-19.141	26.520	22.704	1.00	38.17
ATOM	2965	CG1	VAL	2267	-18.149	27.657	22.924	1.00	38.27
ATOM	2966	CG2	VAL	2267	-19.279	26.218	21.210	1.00	36.88
ATOM	2967	C	VAL	2267	-19.700	24.150	23.250	1.00	35.89
ATOM	2968	O	VAL	2267	-19.446	23.163	22.553	1.00	36.10
ATOM	2969	N	ALA	2268	-20.869	24.338	23.850	1.00	34.73
ATOM	2970	CA	ALA	2268	-21.946	23.369	23.751	1.00	33.00
ATOM	2971	CB	ALA	2268	-22.767	23.370	25.025	1.00	27.28
ATOM	2972	C	ALA	2268	-22.827	23.708	22.574	1.00	34.99
ATOM	2973	O	ALA	2268	-22.923	24.879	22.179	1.00	34.44
ATOM	2974	N	LEU	2269	-23.457	22.681	22.006	1.00	35.47
ATOM	2975	CA	LEU	2269	-24.357	22.882	20.883	1.00	35.90
ATOM	2976	CB	LEU	2269	-25.110	21.584	20.564	1.00	39.22
ATOM	2977	CG	LEU	2269	-24.353	20.443	19.867	1.00	42.42
ATOM	2978	CD1	LEU	2269	-25.140	19.154	20.022	1.00	42.54
ATOM	2979	CD2	LEU	2269	-24.136	20.771	18.386	1.00	41.55
ATOM	2980	C	LEU	2269	-25.352	23.967	21.280	1.00	34.29
ATOM	2981	O	LEU	2269	-25.940	23.905	22.357	1.00	32.80
ATOM	2982	N	GLY	2270	-25.517	24.968	20.419	1.00	34.69
ATOM	2983	CA	GLY	2270	-26.459	26.037	20.699	1.00	38.43
ATOM	2984	C	GLY	2270	-25.838	27.301	21.254	1.00	41.50

Table 2

ATOM	2985	O	GLY	2270	-26.441	28.376	21.184	1.00	41.72
ATOM	2986	N	SER	2271	-24.632	27.173	21.805	1.00	43.37
ATOM	2987	CA	SER	2271	-23.918	28.305	22.380	1.00	43.17
ATOM	2988	CB	SER	2271	-22.628	27.834	23.067	1.00	47.15
ATOM	2989	OG	SER	2271	-22.855	26.791	23.999	1.00	54.22
ATOM	2990	C	SER	2271	-23.528	29.297	21.292	1.00	42.24
ATOM	2991	O	SER	2271	-23.167	28.902	20.179	1.00	41.28
ATOM	2992	N	ASN	2272	-23.600	30.583	21.611	1.00	39.22
ATOM	2993	CA	ASN	2272	-23.181	31.593	20.654	1.00	36.32
ATOM	2994	CB	ASN	2272	-23.903	32.906	20.906	1.00	38.38
ATOM	2995	CG	ASN	2272	-25.394	32.722	20.967	1.00	43.80
ATOM	2996	OD1	ASN	2272	-25.965	31.944	20.193	1.00	43.87
ATOM	2997	ND2	ASN	2272	-26.046	33.435	21.887	1.00	48.37
ATOM	2998	C	ASN	2272	-21.694	31.736	20.924	1.00	32.84
ATOM	2999	O	ASN	2272	-21.222	31.390	22.007	1.00	30.83
ATOM	3000	N	VAL	2273	-20.944	32.228	19.951	1.00	28.07
ATOM	3001	CA	VAL	2273	-19.515	32.351	20.153	1.00	23.37
ATOM	3002	CB	VAL	2273	-18.776	31.080	19.666	1.00	19.24
ATOM	3003	CG1	VAL	2273	-19.577	30.396	18.614	1.00	20.51
ATOM	3004	CG2	VAL	2273	-17.415	31.434	19.115	1.00	19.81
ATOM	3005	C	VAL	2273	-18.950	33.569	19.478	1.00	23.80
ATOM	3006	O	VAL	2273	-19.504	34.065	18.502	1.00	25.04
ATOM	3007	N	GLU	2274	-17.844	34.058	20.026	1.00	23.55
ATOM	3008	CA	GLU	2274	-17.179	35.231	19.496	1.00	23.82
ATOM	3009	CB	GLU	2274	-17.520	36.465	20.340	1.00	26.77
ATOM	3010	CG	GLU	2274	-18.990	36.883	20.323	1.00	31.02
ATOM	3011	CD	GLU	2274	-19.278	38.065	21.256	1.00	36.36
ATOM	3012	OE1	GLU	2274	-19.314	37.871	22.493	1.00	38.44
ATOM	3013	OE2	GLU	2274	-19.461	39.196	20.754	1.00	38.11
ATOM	3014	C	GLU	2274	-15.677	35.019	19.500	1.00	23.04
ATOM	3015	O	GLU	2274	-15.092	34.559	20.481	1.00	23.32
ATOM	3016	N	PHE	2275	-15.056	35.334	18.379	1.00	22.12
ATOM	3017	CA	PHE	2275	-13.617	35.228	18.266	1.00	23.08
ATOM	3018	CB	PHE	2275	-13.227	34.497	16.989	1.00	23.46
ATOM	3019	CG	PHE	2275	-13.513	33.025	17.016	1.00	24.47
ATOM	3020	CD1	PHE	2275	-12.814	32.188	17.876	1.00	20.25
ATOM	3021	CD2	PHE	2275	-14.462	32.469	16.155	1.00	22.69
ATOM	3022	CE1	PHE	2275	-13.046	30.814	17.881	1.00	22.65
ATOM	3023	CE2	PHE	2275	-14.704	31.095	16.151	1.00	23.25
ATOM	3024	CZ	PHE	2275	-13.994	30.264	17.017	1.00	22.55
ATOM	3025	C	PHE	2275	-13.152	36.678	18.192	1.00	24.50
ATOM	3026	O	PHE	2275	-13.847	37.518	17.612	1.00	22.70
ATOM	3027	N	MET	2276	-11.996	36.972	18.792	1.00	23.05
ATOM	3028	CA	MET	2276	-11.450	38.323	18.783	1.00	19.92
ATOM	3029	CB	MET	2276	-11.051	38.767	20.188	1.00	23.46
ATOM	3030	CG	MET	2276	-12.105	38.548	21.248	1.00	28.97
ATOM	3031	SD	MET	2276	-11.548	39.133	22.847	1.00	35.29
ATOM	3032	CE	MET	2276	-12.366	40.757	22.877	1.00	35.62
ATOM	3033	C	MET	2276	-10.224	38.352	17.914	1.00	17.93
ATOM	3034	O	MET	2276	-9.613	37.330	17.644	1.00	17.08
ATOM	3035	N	CYS	2277	-9.857	39.541	17.486	1.00	19.16
ATOM	3036	CA	CYS	2277	-8.693	39.705	16.647	1.00	21.43
ATOM	3037	C	CYS	2277	-8.246	41.148	16.852	1.00	22.01
ATOM	3038	O	CYS	2277	-9.059	42.072	16.737	1.00	21.65
ATOM	3039	CB	CYS	2277	-9.080	39.461	15.189	1.00	23.00
ATOM	3040	SG	CYS	2277	-7.702	39.378	13.994	1.00	33.53
ATOM	3041	N	LYS	2278	-6.969	41.334	17.178	1.00	20.12
ATOM	3042	CA	LYS	2278	-6.420	42.663	17.398	1.00	21.75
ATOM	3043	CB	LYS	2278	-5.748	42.736	18.772	1.00	23.93
ATOM	3044	CG	LYS	2278	-6.257	43.847	19.688	1.00	26.77
ATOM	3045	CD	LYS	2278	-5.526	45.177	19.459	1.00	32.15

Table 2

ATOM	3107	CA	HIS	2286	-8.536	45.227	5.414	1.00	23.32
ATOM	3108	CB	HIS	2286	-8.481	45.010	3.903	1.00	27.49
ATOM	3109	CG	HIS	2286	-9.756	44.476	3.334	1.00	32.81
ATOM	3110	CD2	HIS	2286	-10.924	45.094	3.037	1.00	35.44
ATOM	3111	ND1	HIS	2286	-9.956	43.137	3.081	1.00	33.65
ATOM	3112	CE1	HIS	2286	-11.192	42.952	2.654	1.00	34.94
ATOM	3113	NE2	HIS	2286	-11.800	44.124	2.619	1.00	35.76
ATOM	3114	C	HIS	2286	-8.661	43.904	6.154	1.00	21.23
ATOM	3115	O	HIS	2286	-7.826	43.026	5.987	1.00	20.31
ATOM	3116	N	ILE	2287	-9.691	43.768	6.981	1.00	19.86
ATOM	3117	CA	ILE	2287	-9.862	42.558	7.773	1.00	21.24
ATOM	3118	CB	ILE	2287	-10.142	42.888	9.277	1.00	19.88
ATOM	3119	CG2	ILE	2287	-10.647	41.653	10.001	1.00	20.88
ATOM	3120	CG1	ILE	2287	-8.859	43.337	9.978	1.00	20.91
ATOM	3121	CD1	ILE	2287	-8.405	44.721	9.624	1.00	25.87
ATOM	3122	C	ILE	2287	-10.959	41.622	7.286	1.00	23.20
ATOM	3123	O	ILE	2287	-12.073	42.049	6.994	1.00	24.53
ATOM	3124	N	GLN	2288	-10.630	40.336	7.221	1.00	24.44
ATOM	3125	CA	GLN	2288	-11.574	39.314	6.793	1.00	27.20
ATOM	3126	CB	GLN	2288	-11.244	38.800	5.394	1.00	28.49
ATOM	3127	CG	GLN	2288	-11.553	39.714	4.245	1.00	30.33
ATOM	3128	CD	GLN	2288	-11.346	39.004	2.927	1.00	33.65
ATOM	3129	OE1	GLN	2288	-11.402	39.611	1.858	1.00	37.86
ATOM	3130	NE2	GLN	2288	-11.106	37.699	2.997	1.00	34.58
ATOM	3131	C	GLN	2288	-11.497	38.122	7.713	1.00	27.19
ATOM	3132	O	GLN	2288	-10.430	37.806	8.234	1.00	28.06
ATOM	3133	N	TRP	2289	-12.625	37.457	7.911	1.00	26.54
ATOM	3134	CA	TRP	2289	-12.634	36.253	8.722	1.00	28.32
ATOM	3135	CB	TRP	2289	-13.750	36.299	9.761	1.00	25.38
ATOM	3136	CG	TRP	2289	-13.409	37.180	10.925	1.00	27.68
ATOM	3137	CD2	TRP	2289	-12.744	36.787	12.136	1.00	27.55
ATOM	3138	CE2	TRP	2289	-12.626	37.947	12.943	1.00	26.89
ATOM	3139	CE3	TRP	2289	-12.237	35.571	12.614	1.00	24.06
ATOM	3140	CD1	TRP	2289	-13.656	38.520	11.046	1.00	27.89
ATOM	3141	NE1	TRP	2289	-13.189	38.986	12.258	1.00	25.77
ATOM	3142	CZ2	TRP	2289	-12.024	37.920	14.205	1.00	25.28
ATOM	3143	CZ3	TRP	2289	-11.643	35.547	13.864	1.00	23.82
ATOM	3144	CH2	TRP	2289	-11.542	36.717	14.647	1.00	25.25
ATOM	3145	C	TRP	2289	-12.843	35.102	7.738	1.00	30.49
ATOM	3146	O	TRP	2289	-13.627	35.228	6.794	1.00	30.51
ATOM	3147	N	LEU	2290	-12.135	33.994	7.935	1.00	28.70
ATOM	3148	CA	LEU	2290	-12.269	32.872	7.020	1.00	30.74
ATOM	3149	CB	LEU	2290	-11.000	32.722	6.167	1.00	29.89
ATOM	3150	CG	LEU	2290	-10.212	33.935	5.669	1.00	29.52
ATOM	3151	CD1	LEU	2290	-8.980	33.448	4.918	1.00	28.48
ATOM	3152	CD2	LEU	2290	-11.073	34.800	4.774	1.00	29.20
ATOM	3153	C	LEU	2290	-12.521	31.541	7.718	1.00	32.74
ATOM	3154	O	LEU	2290	-11.876	31.218	8.711	1.00	35.23
ATOM	3155	N	LYS	2291	-13.456	30.762	7.186	1.00	32.99
ATOM	3156	CA	LYS	2291	-13.726	29.441	7.729	1.00	33.14
ATOM	3157	CB	LYS	2291	-15.224	29.138	7.695	1.00	33.79
ATOM	3158	CG	LYS	2291	-15.591	27.702	8.118	1.00	35.06
ATOM	3159	CD	LYS	2291	-15.159	27.402	9.548	1.00	38.44
ATOM	3160	CE	LYS	2291	-15.732	26.092	10.073	1.00	40.01
ATOM	3161	NZ	LYS	2291	-15.085	24.893	9.476	1.00	42.04
ATOM	3162	C	LYS	2291	-12.978	28.455	6.833	1.00	33.08
ATOM	3163	O	LYS	2291	-12.884	28.653	5.626	1.00	33.86
ATOM	3164	N	HIS	2292	-12.423	27.406	7.417	1.00	33.75
ATOM	3165	CA	HIS	2292	-11.715	26.419	6.621	1.00	36.27
ATOM	3166	CB	HIS	2292	-10.565	25.839	7.437	1.00	36.83
ATOM	3167	CG	HIS	2292	-9.474	26.827	7.704	1.00	40.26

Table 2

ATOM	3168	CD2	HIS	2292	-9.432	27.902	8.527	1.00	42.43
ATOM	3169	ND1	HIS	2292	-8.277	26.818	7.024	1.00	41.03
ATOM	3170	CE1	HIS	2292	-7.541	27.844	7.413	1.00	40.49
ATOM	3171	NE2	HIS	2292	-8.220	28.518	8.325	1.00	42.70
ATOM	3172	C	HIS	2292	-12.696	25.334	6.196	1.00	38.08
ATOM	3173	O	HIS	2292	-13.502	24.868	7.000	1.00	39.31
ATOM	3174	N	ILE	2293	-12.652	24.950	4.925	1.00	39.67
ATOM	3175	CA	ILE	2293	-13.561	23.920	4.432	1.00	41.05
ATOM	3176	CB	ILE	2293	-14.479	24.454	3.322	1.00	41.60
ATOM	3177	CG2	ILE	2293	-15.592	23.439	3.057	1.00	44.08
ATOM	3178	CG1	ILE	2293	-15.087	25.792	3.740	1.00	41.91
ATOM	3179	CD1	ILE	2293	-15.889	26.455	2.640	1.00	43.30
ATOM	3180	C	ILE	2293	-12.799	22.730	3.875	1.00	39.31
ATOM	3181	O	ILE	2293	-11.990	22.886	2.968	1.00	39.37
ATOM	3182	N	ASN	2304	-1.041	23.913	-2.561	1.00	62.05
ATOM	3183	CA	ASN	2304	-0.699	23.331	-1.272	1.00	64.32
ATOM	3184	CB	ASN	2304	0.817	23.290	-1.124	1.00	67.23
ATOM	3185	CG	ASN	2304	1.255	22.401	0.024	1.00	70.61
ATOM	3186	OD1	ASN	2304	0.870	21.221	0.110	1.00	72.36
ATOM	3187	ND2	ASN	2304	2.089	22.962	0.911	1.00	71.52
ATOM	3188	C	ASN	2304	-1.281	24.209	-0.165	1.00	64.20
ATOM	3189	O	ASN	2304	-0.764	24.302	0.942	1.00	64.52
ATOM	3190	N	LEU	2305	-2.389	24.872	-0.490	1.00	63.72
ATOM	3191	CA	LEU	2305	-3.067	25.756	0.442	1.00	62.02
ATOM	3192	CB	LEU	2305	-3.184	27.154	-0.152	1.00	62.74
ATOM	3193	CG	LEU	2305	-1.908	27.883	-0.565	1.00	62.44
ATOM	3194	CD1	LEU	2305	-2.319	29.112	-1.312	1.00	61.35
ATOM	3195	CD2	LEU	2305	-1.025	28.247	0.650	1.00	62.84
ATOM	3196	C	LEU	2305	-4.473	25.244	0.704	1.00	61.44
ATOM	3197	O	LEU	2305	-5.041	24.551	-0.133	1.00	62.02
ATOM	3198	N	PRO	2306	-5.073	25.623	1.836	1.00	60.02
ATOM	3199	CD	PRO	2306	-4.615	26.411	2.990	1.00	59.73
ATOM	3200	CA	PRO	2306	-6.431	25.139	2.106	1.00	57.82
ATOM	3201	CB	PRO	2306	-6.466	25.124	3.595	1.00	59.06
ATOM	3202	CG	PRO	2306	-5.874	26.399	3.869	1.00	60.01
ATOM	3203	C	PRO	2306	-7.546	26.011	1.593	1.00	56.58
ATOM	3204	O	PRO	2306	-7.399	27.228	1.445	1.00	58.04
ATOM	3205	N	TYR	2307	-8.688	25.369	1.388	1.00	55.64
ATOM	3206	CA	TYR	2307	-9.885	26.056	0.936	1.00	53.48
ATOM	3207	CB	TYR	2307	-10.933	25.076	0.417	1.00	56.98
ATOM	3208	CG	TYR	2307	-10.416	23.924	-0.405	1.00	62.03
ATOM	3209	CD1	TYR	2307	-9.967	22.753	0.209	1.00	65.31
ATOM	3210	CE1	TYR	2307	-9.517	21.669	-0.544	1.00	66.92
ATOM	3211	CD2	TYR	2307	-10.401	23.990	-1.800	1.00	63.17
ATOM	3212	CE2	TYR	2307	-9.952	22.915	-2.565	1.00	65.21
ATOM	3213	CZ	TYR	2307	-9.511	21.758	-1.929	1.00	67.11
ATOM	3214	OH	TYR	2307	-9.067	20.689	-2.671	1.00	67.96
ATOM	3215	C	TYR	2307	-10.537	26.824	2.082	1.00	49.68
ATOM	3216	O	TYR	2307	-10.633	26.335	3.207	1.00	49.15
ATOM	3217	N	VAL	2308	-11.029	28.017	1.789	1.00	45.52
ATOM	3218	CA	VAL	2308	-11.660	28.826	2.815	1.00	43.00
ATOM	3219	CB	VAL	2308	-10.746	29.992	3.239	1.00	41.70
ATOM	3220	CG1	VAL	2308	-9.441	29.451	3.779	1.00	37.17
ATOM	3221	CG2	VAL	2308	-10.487	30.931	2.052	1.00	40.99
ATOM	3222	C	VAL	2308	-12.978	29.390	2.331	1.00	41.87
ATOM	3223	O	VAL	2308	-13.292	29.337	1.149	1.00	42.67
ATOM	3224	N	GLN	2309	-13.739	29.935	3.264	1.00	41.93
ATOM	3225	CA	GLN	2309	-15.021	30.520	2.963	1.00	42.91
ATOM	3226	CB	GLN	2309	-16.127	29.659	3.562	1.00	44.89
ATOM	3227	CG	GLN	2309	-17.516	30.053	3.136	1.00	52.27
ATOM	3228	CD	GLN	2309	-18.587	29.456	4.026	1.00	56.02

Table 2

ATOM	3412	O	ASN	2345	-1.140	45.224	2.027	1.00	22.16
ATOM	3413	N	SER	2346	-1.303	47.458	1.916	1.00	21.88
ATOM	3414	CA	SER	2346	-0.518	47.541	0.699	1.00	21.21
ATOM	3415	CB	SER	2346	-0.334	48.992	0.283	1.00	24.16
ATOM	3416	OG	SER	2346	0.677	49.611	1.064	1.00	33.09
ATOM	3417	C	SER	2346	0.846	46.888	0.779	1.00	20.93
ATOM	3418	O	SER	2346	1.414	46.559	-0.252	1.00	24.76
ATOM	3419	N	ILE	2347	1.393	46.706	1.977	1.00	19.77
ATOM	3420	CA	ILE	2347	2.718	46.087	2.082	1.00	19.53
ATOM	3421	CB	ILE	2347	3.476	46.527	3.386	1.00	19.85
ATOM	3422	CG2	ILE	2347	4.732	45.668	3.573	1.00	18.89
ATOM	3423	CG1	ILE	2347	3.948	47.985	3.286	1.00	14.77
ATOM	3424	CD1	ILE	2347	2.872	48.970	2.968	1.00	14.56
ATOM	3425	C	ILE	2347	2.656	44.552	2.033	1.00	19.00
ATOM	3426	O	ILE	2347	3.401	43.908	1.294	1.00	18.70
ATOM	3427	N	GLY	2348	1.766	43.972	2.821	1.00	18.45
ATOM	3428	CA	GLY	2348	1.630	42.533	2.846	1.00	16.84
ATOM	3429	C	GLY	2348	0.423	42.154	3.673	1.00	19.06
ATOM	3430	O	GLY	2348	-0.350	43.017	4.090	1.00	21.04
ATOM	3431	N	LEU	2349	0.232	40.866	3.915	1.00	21.40
ATOM	3432	CA	LEU	2349	-0.917	40.472	4.710	1.00	23.92
ATOM	3433	CB	LEU	2349	-2.002	39.887	3.802	1.00	24.93
ATOM	3434	CG	LEU	2349	-1.783	38.567	3.089	1.00	25.84
ATOM	3435	CD1	LEU	2349	-2.053	37.427	4.071	1.00	27.55
ATOM	3436	CD2	LEU	2349	-2.734	38.466	1.902	1.00	24.89
ATOM	3437	C	LEU	2349	-0.519	39.508	5.819	1.00	23.81
ATOM	3438	O	LEU	2349	0.536	38.881	5.752	1.00	22.86
ATOM	3439	N	SER	2350	-1.353	39.411	6.849	1.00	25.20
ATOM	3440	CA	SER	2350	-1.058	38.533	7.982	1.00	23.85
ATOM	3441	CB	SER	2350	-0.478	39.356	9.129	1.00	26.37
ATOM	3442	OG	SER	2350	0.066	40.585	8.661	1.00	27.48
ATOM	3443	C	SER	2350	-2.327	37.858	8.481	1.00	22.50
ATOM	3444	O	SER	2350	-3.431	38.326	8.222	1.00	22.48
ATOM	3445	N	HIS	2351	-2.170	36.762	9.205	1.00	23.35
ATOM	3446	CA	HIS	2351	-3.330	36.078	9.766	1.00	25.91
ATOM	3447	CB	HIS	2351	-4.119	35.351	8.676	1.00	24.75
ATOM	3448	CG	HIS	2351	-3.378	34.217	8.053	1.00	25.15
ATOM	3449	CD2	HIS	2351	-3.516	32.877	8.191	1.00	25.62
ATOM	3450	ND1	HIS	2351	-2.353	34.407	7.151	1.00	26.72
ATOM	3451	CE1	HIS	2351	-1.893	33.232	6.759	1.00	25.94
ATOM	3452	NE2	HIS	2351	-2.582	32.287	7.374	1.00	26.06
ATOM	3453	C	HIS	2351	-2.990	35.093	10.880	1.00	26.62
ATOM	3454	O	HIS	2351	-1.873	34.585	10.973	1.00	27.45
ATOM	3455	N	HIS	2352	-3.980	34.849	11.728	1.00	27.46
ATOM	3456	CA	HIS	2352	-3.879	33.923	12.848	1.00	25.59
ATOM	3457	CB	HIS	2352	-3.870	34.669	14.184	1.00	26.72
ATOM	3458	CG	HIS	2352	-2.614	35.436	14.453	1.00	27.99
ATOM	3459	CD2	HIS	2352	-1.546	35.715	13.669	1.00	28.60
ATOM	3460	ND1	HIS	2352	-2.357	36.022	15.674	1.00	25.34
ATOM	3461	CE1	HIS	2352	-1.185	36.630	15.630	1.00	25.94
ATOM	3462	NE2	HIS	2352	-0.673	36.459	14.425	1.00	28.21
ATOM	3463	C	HIS	2352	-5.141	33.078	12.777	1.00	25.00
ATOM	3464	O	HIS	2352	-6.189	33.545	12.318	1.00	23.02
ATOM	3465	N	SER	2353	-5.049	31.837	13.231	1.00	25.48
ATOM	3466	CA	SER	2353	-6.209	30.962	13.207	1.00	26.14
ATOM	3467	CB	SER	2353	-5.983	29.830	12.216	1.00	25.97
ATOM	3468	OG	SER	2353	-5.596	30.359	10.961	1.00	30.37
ATOM	3469	C	SER	2353	-6.488	30.394	14.577	1.00	25.96
ATOM	3470	O	SER	2353	-5.682	30.529	15.493	1.00	27.63
ATOM	3471	N	ALA	2354	-7.648	29.769	14.716	1.00	28.26
ATOM	3472	CA	ALA	2354	-8.039	29.151	15.981	1.00	28.99

Table 2

ATOM	3473	CB	ALA	2354	-8.682	30.180	16.906	1.00	26.00
ATOM	3474	C	ALA	2354	-9.014	28.026	15.677	1.00	28.34
ATOM	3475	O	ALA	2354	-9.589	27.992	14.591	1.00	25.64
ATOM	3476	N	TRP	2355	-9.200	27.111	16.626	1.00	30.54
ATOM	3477	CA	TRP	2355	-10.107	25.978	16.429	1.00	31.68
ATOM	3478	CB	TRP	2355	-9.349	24.650	16.576	1.00	35.96
ATOM	3479	CG	TRP	2355	-9.671	23.674	15.485	1.00	44.14
ATOM	3480	CD2	TRP	2355	-10.745	22.713	15.477	1.00	46.89
ATOM	3481	CE2	TRP	2355	-10.700	22.050	14.225	1.00	47.34
ATOM	3482	CE3	TRP	2355	-11.739	22.350	16.402	1.00	49.33
ATOM	3483	CD1	TRP	2355	-9.038	23.554	14.273	1.00	45.62
ATOM	3484	NE1	TRP	2355	-9.654	22.579	13.514	1.00	47.04
ATOM	3485	CZ2	TRP	2355	-11.616	21.041	13.877	1.00	49.67
ATOM	3486	CZ3	TRP	2355	-12.658	21.336	16.053	1.00	50.10
ATOM	3487	CH2	TRP	2355	-12.583	20.698	14.799	1.00	51.09
ATOM	3488	C	TRP	2355	-11.286	26.007	17.394	1.00	30.19
ATOM	3489	O	TRP	2355	-11.110	26.198	18.613	1.00	29.45
ATOM	3490	N	LEU	2356	-12.480	25.839	16.848	1.00	28.20
ATOM	3491	CA	LEU	2356	-13.696	25.852	17.645	1.00	27.77
ATOM	3492	CB	LEU	2356	-14.800	26.608	16.918	1.00	26.93
ATOM	3493	CG	LEU	2356	-16.128	26.552	17.675	1.00	29.22
ATOM	3494	CD1	LEU	2356	-16.026	27.451	18.915	1.00	29.55
ATOM	3495	CD2	LEU	2356	-17.289	27.011	16.778	1.00	26.35
ATOM	3496	C	LEU	2356	-14.162	24.436	17.901	1.00	27.46
ATOM	3497	O	LEU	2356	-14.468	23.702	16.957	1.00	28.35
ATOM	3498	N	THR	2357	-14.260	24.053	19.167	1.00	28.12
ATOM	3499	CA	THR	2357	-14.697	22.710	19.490	1.00	28.42
ATOM	3500	CB	THR	2357	-13.766	22.070	20.539	1.00	29.97
ATOM	3501	OG1	THR	2357	-12.397	22.232	20.124	1.00	34.87
ATOM	3502	CG2	THR	2357	-14.085	20.602	20.675	1.00	28.93
ATOM	3503	C	THR	2357	-16.128	22.755	19.990	1.00	27.28
ATOM	3504	O	THR	2357	-16.493	23.594	20.821	1.00	25.21
ATOM	3505	N	VAL	2358	-16.948	21.853	19.473	1.00	26.50
ATOM	3506	CA	VAL	2358	-18.345	21.841	19.880	1.00	27.27
ATOM	3507	CB	VAL	2358	-19.239	22.101	18.692	1.00	28.10
ATOM	3508	CG1	VAL	2358	-20.639	22.433	19.174	1.00	31.58
ATOM	3509	CG2	VAL	2358	-18.646	23.239	17.861	1.00	27.73
ATOM	3510	C	VAL	2358	-18.769	20.553	20.577	1.00	27.76
ATOM	3511	O	VAL	2358	-18.437	19.453	20.141	1.00	27.86
ATOM	3512	N	LEU	2359	-19.524	20.709	21.661	1.00	29.50
ATOM	3513	CA	LEU	2359	-19.960	19.576	22.466	1.00	29.73
ATOM	3514	CB	LEU	2359	-19.235	19.650	23.817	1.00	28.52
ATOM	3515	CG	LEU	2359	-17.709	19.655	23.682	1.00	24.43
ATOM	3516	CD1	LEU	2359	-17.073	19.819	25.063	1.00	22.37
ATOM	3517	CD2	LEU	2359	-17.264	18.353	22.992	1.00	18.11
ATOM	3518	C	LEU	2359	-21.480	19.460	22.670	1.00	30.02
ATOM	3519	O	LEU	2359	-22.142	20.532	22.683	1.00	29.26
ATOM	3520	CB	ASN	3147	-34.933	22.064	55.418	1.00	44.07
ATOM	3521	CG	ASN	3147	-36.079	21.137	55.075	1.00	49.07
ATOM	3522	OD1	ASN	3147	-35.963	19.925	55.207	1.00	51.17
ATOM	3523	ND2	ASN	3147	-37.193	21.708	54.646	1.00	49.27
ATOM	3524	C	ASN	3147	-33.835	22.292	57.692	1.00	40.45
ATOM	3525	O	ASN	3147	-33.964	21.572	58.683	1.00	40.68
ATOM	3526	N	ASN	3147	-35.269	24.112	56.758	1.00	42.01
ATOM	3527	CA	ASN	3147	-35.056	22.641	56.832	1.00	42.43
ATOM	3528	N	ARG	3148	-32.658	22.799	57.342	1.00	37.62
ATOM	3529	CA	ARG	3148	-31.470	22.483	58.148	1.00	36.21
ATOM	3530	CB	ARG	3148	-30.346	21.952	57.257	1.00	34.96
ATOM	3531	C	ARG	3148	-30.943	23.632	59.017	1.00	35.42
ATOM	3532	O	ARG	3148	-31.315	24.798	58.836	1.00	36.26
ATOM	3533	N	MET	3149	-30.101	23.277	59.987	1.00	31.28

Table 2

ATOM	3534	CA	MET	3149	-29.501	24.245	60.908	1.00	27.15
ATOM	3535	CB	MET	3149	-28.481	23.554	61.808	1.00	28.45
ATOM	3536	CG	MET	3149	-27.849	24.460	62.865	1.00	27.74
ATOM	3537	SD	MET	3149	-28.961	24.797	64.250	1.00	29.90
ATOM	3538	CE	MET	3149	-28.319	26.362	64.772	1.00	26.73
ATOM	3539	C	MET	3149	-28.806	25.378	60.171	1.00	23.68
ATOM	3540	O	MET	3149	-27.832	25.153	59.462	1.00	24.57
ATOM	3541	N	PRO	3150	-29.275	26.619	60.360	1.00	21.74
ATOM	3542	CD	PRO	3150	-30.432	27.035	61.174	1.00	19.77
ATOM	3543	CA	PRO	3150	-28.667	27.770	59.684	1.00	17.93
ATOM	3544	CB	PRO	3150	-29.414	28.956	60.293	1.00	20.02
ATOM	3545	CG	PRO	3150	-30.789	28.377	60.555	1.00	17.09
ATOM	3546	C	PRO	3150	-27.163	27.877	59.863	1.00	13.71
ATOM	3547	O	PRO	3150	-26.635	27.611	60.938	1.00	17.01
ATOM	3548	N	VAL	3151	-26.474	28.248	58.791	1.00	12.06
ATOM	3549	CA	VAL	3151	-25.019	28.410	58.810	1.00	11.74
ATOM	3550	CB	VAL	3151	-24.276	27.099	58.419	1.00	9.82
ATOM	3551	CG1	VAL	3151	-22.767	27.358	58.290	1.00	2.10
ATOM	3552	CG2	VAL	3151	-24.539	26.019	59.467	1.00	7.23
ATOM	3553	C	VAL	3151	-24.582	29.501	57.840	1.00	13.11
ATOM	3554	O	VAL	3151	-24.724	29.355	56.622	1.00	12.79
ATOM	3555	N	ALA	3152	-24.052	30.597	58.374	1.00	13.16
ATOM	3556	CA	ALA	3152	-23.599	31.686	57.507	1.00	14.26
ATOM	3557	CB	ALA	3152	-23.067	32.847	58.340	1.00	7.04
ATOM	3558	C	ALA	3152	-22.519	31.170	56.535	1.00	13.45
ATOM	3559	O	ALA	3152	-21.733	30.291	56.869	1.00	12.84
ATOM	3560	N	PRO	3153	-22.481	31.717	55.315	1.00	15.40
ATOM	3561	CD	PRO	3153	-23.320	32.814	54.796	1.00	14.82
ATOM	3562	CA	PRO	3153	-21.498	31.292	54.318	1.00	16.14
ATOM	3563	CB	PRO	3153	-21.883	32.114	53.089	1.00	16.95
ATOM	3564	CG	PRO	3153	-22.470	33.360	53.690	1.00	17.38
ATOM	3565	C	PRO	3153	-20.051	31.491	54.733	1.00	17.05
ATOM	3566	O	PRO	3153	-19.689	32.528	55.275	1.00	16.99
ATOM	3567	N	TYR	3154	-19.227	30.485	54.456	1.00	21.23
ATOM	3568	CA	TYR	3154	-17.807	30.516	54.797	1.00	20.93
ATOM	3569	CB	TYR	3154	-17.579	29.793	56.105	1.00	19.47
ATOM	3570	CG	TYR	3154	-17.999	28.351	56.035	1.00	17.48
ATOM	3571	CD1	TYR	3154	-19.340	28.006	55.910	1.00	14.81
ATOM	3572	CE1	TYR	3154	-19.732	26.680	55.837	1.00	18.14
ATOM	3573	CD2	TYR	3154	-17.051	27.327	56.082	1.00	18.77
ATOM	3574	CE2	TYR	3154	-17.432	25.987	56.010	1.00	17.16
ATOM	3575	CZ	TYR	3154	-18.770	25.672	55.888	1.00	19.28
ATOM	3576	OH	TYR	3154	-19.146	24.352	55.828	1.00	21.94
ATOM	3577	C	TYR	3154	-16.947	29.848	53.737	1.00	22.24
ATOM	3578	O	TYR	3154	-17.401	28.963	53.015	1.00	24.32
ATOM	3579	N	TRP	3155	-15.689	30.267	53.683	1.00	24.77
ATOM	3580	CA	TRP	3155	-14.713	29.744	52.732	1.00	27.11
ATOM	3581	CB	TRP	3155	-13.418	30.548	52.845	1.00	26.23
ATOM	3582	CG	TRP	3155	-13.586	32.029	52.627	1.00	24.87
ATOM	3583	CD2	TRP	3155	-14.384	32.670	51.622	1.00	23.22
ATOM	3584	CE2	TRP	3155	-14.193	34.067	51.763	1.00	23.69
ATOM	3585	CE3	TRP	3155	-15.240	32.204	50.617	1.00	21.94
ATOM	3586	CD1	TRP	3155	-12.962	33.035	53.318	1.00	24.48
ATOM	3587	NE1	TRP	3155	-13.321	34.260	52.804	1.00	22.81
ATOM	3588	CZ2	TRP	3155	-14.830	35.003	50.932	1.00	21.14
ATOM	3589	CZ3	TRP	3155	-15.872	33.135	49.789	1.00	21.61
ATOM	3590	CH2	TRP	3155	-15.661	34.519	49.954	1.00	22.70
ATOM	3591	C	TRP	3155	-14.415	28.261	52.970	1.00	28.81
ATOM	3592	O	TRP	3155	-14.352	27.804	54.108	1.00	29.07
ATOM	3593	N	THR	3156	-14.221	27.520	51.886	1.00	31.49
ATOM	3594	CA	THR	3156	-13.937	26.093	51.968	1.00	34.42

Table 2

ATOM	3595	CB	THR	3156	-14.935	25.292	51.097	1.00	36.07
ATOM	3596	OG1	THR	3156	-16.258	25.446	51.628	1.00	37.52
ATOM	3597	CG2	THR	3156	-14.574	23.812	51.068	1.00	38.45
ATOM	3598	C	THR	3156	-12.515	25.811	51.496	1.00	36.62
ATOM	3599	O	THR	3156	-12.059	24.672	51.493	1.00	38.31
ATOM	3600	N	SER	3157	-11.809	26.859	51.100	1.00	38.06
ATOM	3601	CA	SER	3157	-10.448	26.691	50.627	1.00	39.63
ATOM	3602	CB	SER	3157	-10.474	26.163	49.192	1.00	42.04
ATOM	3603	OG	SER	3157	-9.165	25.975	48.686	1.00	48.25
ATOM	3604	C	SER	3157	-9.732	28.027	50.687	1.00	39.53
ATOM	3605	O	SER	3157	-9.023	28.406	49.756	1.00	39.53
ATOM	3606	N	PRO	3158	-9.894	28.750	51.807	1.00	40.33
ATOM	3607	CD	PRO	3158	-10.415	28.203	53.072	1.00	38.84
ATOM	3608	CA	PRO	3158	-9.283	30.066	52.031	1.00	41.05
ATOM	3609	CB	PRO	3158	-9.298	30.193	53.552	1.00	39.82
ATOM	3610	CG	PRO	3158	-10.514	29.428	53.933	1.00	39.18
ATOM	3611	C	PRO	3158	-7.873	30.157	51.463	1.00	41.84
ATOM	3612	O	PRO	3158	-7.460	31.194	50.938	1.00	40.53
ATOM	3613	N	ALA	3159	-7.144	29.055	51.577	1.00	42.89
ATOM	3614	CA	ALA	3159	-5.783	28.990	51.084	1.00	44.47
ATOM	3615	CB	ALA	3159	-5.269	27.557	51.180	1.00	46.15
ATOM	3616	C	ALA	3159	-5.727	29.475	49.641	1.00	44.76
ATOM	3617	O	ALA	3159	-5.175	30.545	49.353	1.00	44.96
ATOM	3618	N	ALA	3160	-6.312	28.685	48.743	1.00	42.87
ATOM	3619	CA	ALA	3160	-6.328	29.011	47.324	1.00	42.85
ATOM	3620	CB	ALA	3160	-7.370	28.152	46.607	1.00	41.03
ATOM	3621	C	ALA	3160	-6.592	30.493	47.050	1.00	43.30
ATOM	3622	O	ALA	3160	-6.115	31.035	46.050	1.00	46.42
ATOM	3623	N	MET	3161	-7.328	31.153	47.942	1.00	41.04
ATOM	3624	CA	MET	3161	-7.666	32.560	47.756	1.00	38.29
ATOM	3625	CB	MET	3161	-8.936	32.890	48.545	1.00	36.52
ATOM	3626	CG	MET	3161	-10.049	31.857	48.369	1.00	34.13
ATOM	3627	SD	MET	3161	-11.553	32.242	49.278	1.00	30.96
ATOM	3628	CE	MET	3161	-12.721	31.294	48.415	1.00	36.88
ATOM	3629	C	MET	3161	-6.557	33.548	48.119	1.00	38.60
ATOM	3630	O	MET	3161	-6.658	34.733	47.804	1.00	38.63
ATOM	3631	N	ALA	3162	-5.499	33.066	48.766	1.00	38.98
ATOM	3632	CA	ALA	3162	-4.386	33.932	49.166	1.00	37.98
ATOM	3633	CB	ALA	3162	-3.288	33.097	49.821	1.00	40.89
ATOM	3634	C	ALA	3162	-3.816	34.711	47.978	1.00	36.26
ATOM	3635	O	ALA	3162	-3.553	35.911	48.081	1.00	34.15
ATOM	3636	N	LYS	3163	-3.619	34.011	46.860	1.00	34.79
ATOM	3637	CA	LYS	3163	-3.105	34.602	45.621	1.00	32.71
ATOM	3638	CB	LYS	3163	-2.867	33.483	44.608	1.00	29.79
ATOM	3639	CG	LYS	3163	-2.416	33.927	43.247	1.00	30.82
ATOM	3640	CD	LYS	3163	-2.410	32.742	42.276	1.00	33.00
ATOM	3641	CE	LYS	3163	-2.244	33.211	40.818	1.00	36.76
ATOM	3642	NZ	LYS	3163	-2.375	32.119	39.797	1.00	33.68
ATOM	3643	C	LYS	3163	-4.181	35.574	45.109	1.00	33.81
ATOM	3644	O	LYS	3163	-5.115	35.165	44.407	1.00	32.40
ATOM	3645	N	ALA	3164	-4.045	36.855	45.467	1.00	32.72
ATOM	3646	CA	ALA	3164	-5.022	37.877	45.099	1.00	30.74
ATOM	3647	CB	ALA	3164	-4.965	39.035	46.094	1.00	28.25
ATOM	3648	C	ALA	3164	-4.900	38.409	43.680	1.00	31.97
ATOM	3649	O	ALA	3164	-5.902	38.594	42.977	1.00	31.00
ATOM	3650	N	LEU	3165	-3.678	38.659	43.244	1.00	32.83
ATOM	3651	CA	LEU	3165	-3.494	39.182	41.895	1.00	34.12
ATOM	3652	CB	LEU	3165	-2.321	40.164	41.864	1.00	31.66
ATOM	3653	CG	LEU	3165	-1.902	40.675	40.489	1.00	29.85
ATOM	3654	CD1	LEU	3165	-3.047	41.426	39.852	1.00	28.92
ATOM	3655	CD2	LEU	3165	-0.692	41.575	40.636	1.00	32.73

Table 2

ATOM	3656	C	LEU	3165	-3.274	38.098	40.838	1.00	35.09
ATOM	3657	O	LEU	3165	-2.440	37.200	40.994	1.00	35.48
ATOM	3658	N	HIS	3166	-4.040	38.190	39.758	1.00	35.16
ATOM	3659	CA	HIS	3166	-3.915	37.254	38.655	1.00	33.65
ATOM	3660	CB	HIS	3166	-5.265	36.610	38.323	1.00	33.18
ATOM	3661	CG	HIS	3166	-5.591	35.420	39.168	1.00	33.75
ATOM	3662	CD2	HIS	3166	-5.711	34.109	38.849	1.00	34.10
ATOM	3663	ND1	HIS	3166	-5.840	35.509	40.520	1.00	34.52
ATOM	3664	CE1	HIS	3166	-6.100	34.305	41.000	1.00	33.44
ATOM	3665	NE2	HIS	3166	-6.028	33.439	40.007	1.00	33.69
ATOM	3666	C	HIS	3166	-3.387	37.992	37.434	1.00	32.45
ATOM	3667	O	HIS	3166	-4.116	38.715	36.750	1.00	31.98
ATOM	3668	N	ALA	3167	-2.101	37.833	37.175	1.00	30.77
ATOM	3669	CA	ALA	3167	-1.513	38.471	36.016	1.00	30.62
ATOM	3670	CB	ALA	3167	-0.104	38.959	36.336	1.00	29.94
ATOM	3671	C	ALA	3167	-1.496	37.405	34.920	1.00	29.25
ATOM	3672	O	ALA	3167	-0.961	36.311	35.105	1.00	30.60
ATOM	3673	N	VAL	3168	-2.094	37.722	33.781	1.00	26.81
ATOM	3674	CA	VAL	3168	-2.164	36.769	32.684	1.00	24.17
ATOM	3675	CB	VAL	3168	-3.602	36.150	32.624	1.00	23.29
ATOM	3676	CG1	VAL	3168	-4.154	36.141	31.198	1.00	22.64
ATOM	3677	CG2	VAL	3168	-3.574	34.757	33.180	1.00	19.45
ATOM	3678	C	VAL	3168	-1.796	37.364	31.325	1.00	23.88
ATOM	3679	O	VAL	3168	-2.079	38.534	31.028	1.00	23.24
ATOM	3680	N	PRO	3169	-1.126	36.574	30.483	1.00	22.93
ATOM	3681	CD	PRO	3169	-0.561	35.222	30.633	1.00	21.77
ATOM	3682	CA	PRO	3169	-0.796	37.148	29.180	1.00	23.68
ATOM	3683	CB	PRO	3169	0.281	36.200	28.651	1.00	22.17
ATOM	3684	CG	PRO	3169	-0.140	34.884	29.203	1.00	19.69
ATOM	3685	C	PRO	3169	-2.093	37.132	28.344	1.00	23.78
ATOM	3686	O	PRO	3169	-2.878	36.172	28.397	1.00	21.15
ATOM	3687	N	ALA	3170	-2.326	38.204	27.597	1.00	23.56
ATOM	3688	CA	ALA	3170	-3.525	38.315	26.773	1.00	21.30
ATOM	3689	CB	ALA	3170	-3.358	39.449	25.776	1.00	18.95
ATOM	3690	C	ALA	3170	-3.833	37.022	26.036	1.00	20.56
ATOM	3691	O	ALA	3170	-2.917	36.315	25.595	1.00	19.94
ATOM	3692	N	ALA	3171	-5.126	36.710	25.932	1.00	19.85
ATOM	3693	CA	ALA	3171	-5.601	35.519	25.221	1.00	18.11
ATOM	3694	CB	ALA	3171	-4.642	35.165	24.078	1.00	15.17
ATOM	3695	C	ALA	3171	-5.834	34.295	26.081	1.00	17.89
ATOM	3696	O	ALA	3171	-6.490	33.349	25.655	1.00	21.43
ATOM	3697	N	ALA	3172	-5.296	34.290	27.287	1.00	18.71
ATOM	3698	CA	ALA	3172	-5.489	33.137	28.140	1.00	18.57
ATOM	3699	CB	ALA	3172	-4.399	33.084	29.188	1.00	15.97
ATOM	3700	C	ALA	3172	-6.867	33.173	28.797	1.00	21.38
ATOM	3701	O	ALA	3172	-7.439	34.243	29.019	1.00	22.10
ATOM	3702	N	THR	3173	-7.416	31.989	29.065	1.00	24.31
ATOM	3703	CA	THR	3173	-8.710	31.876	29.740	1.00	23.82
ATOM	3704	CB	THR	3173	-9.343	30.465	29.550	1.00	23.64
ATOM	3705	OG1	THR	3173	-9.900	30.368	28.234	1.00	26.07
ATOM	3706	CG2	THR	3173	-10.449	30.206	30.584	1.00	20.22
ATOM	3707	C	THR	3173	-8.402	32.092	31.219	1.00	22.88
ATOM	3708	O	THR	3173	-7.450	31.521	31.752	1.00	23.50
ATOM	3709	N	VAL	3174	-9.196	32.921	31.877	1.00	19.83
ATOM	3710	CA	VAL	3174	-8.976	33.200	33.282	1.00	16.83
ATOM	3711	CB	VAL	3174	-8.822	34.708	33.493	1.00	15.67
ATOM	3712	CG1	VAL	3174	-9.055	35.062	34.940	1.00	17.37
ATOM	3713	CG2	VAL	3174	-7.450	35.143	33.052	1.00	12.57
ATOM	3714	C	VAL	3174	-10.140	32.711	34.117	1.00	17.52
ATOM	3715	O	VAL	3174	-11.284	33.032	33.810	1.00	21.82
ATOM	3716	N	ALA	3175	-9.862	31.935	35.161	1.00	16.14

Table 2

ATOM	3717	CA	ALA	3175	-10.931	31.458	36.048	1.00	17.44
ATOM	3718	CB	ALA	3175	-10.977	29.935	36.044	1.00	14.62
ATOM	3719	C	ALA	3175	-10.715	31.983	37.483	1.00	19.37
ATOM	3720	O	ALA	3175	-9.577	32.116	37.936	1.00	21.07
ATOM	3721	N	PHE	3176	-11.803	32.316	38.180	1.00	21.52
ATOM	3722	CA	PHE	3176	-11.730	32.800	39.572	1.00	22.20
ATOM	3723	CB	PHE	3176	-12.181	34.271	39.710	1.00	21.08
ATOM	3724	CG	PHE	3176	-11.178	35.263	39.195	1.00	17.44
ATOM	3725	CD1	PHE	3176	-9.820	35.061	39.403	1.00	13.20
ATOM	3726	CD2	PHE	3176	-11.590	36.378	38.471	1.00	19.12
ATOM	3727	CE1	PHE	3176	-8.881	35.945	38.896	1.00	15.24
ATOM	3728	CE2	PHE	3176	-10.652	37.282	37.951	1.00	20.36
ATOM	3729	CZ	PHE	3176	-9.292	37.062	38.164	1.00	18.37
ATOM	3730	C	PHE	3176	-12.613	31.932	40.453	1.00	23.14
ATOM	3731	O	PHE	3176	-13.757	31.657	40.123	1.00	25.48
ATOM	3732	N	ALA	3177	-12.092	31.517	41.592	1.00	24.72
ATOM	3733	CA	ALA	3177	-12.860	30.652	42.460	1.00	26.07
ATOM	3734	CB	ALA	3177	-12.216	29.256	42.483	1.00	25.30
ATOM	3735	C	ALA	3177	-13.022	31.175	43.879	1.00	27.27
ATOM	3736	O	ALA	3177	-12.136	31.830	44.440	1.00	26.09
ATOM	3737	N	CYS	3178	-14.177	30.866	44.447	1.00	26.85
ATOM	3738	CA	CYS	3178	-14.508	31.249	45.799	1.00	26.83
ATOM	3739	C	CYS	3178	-15.230	30.059	46.399	1.00	26.94
ATOM	3740	O	CYS	3178	-16.431	30.116	46.671	1.00	27.90
ATOM	3741	CB	CYS	3178	-15.418	32.490	45.811	1.00	27.91
ATOM	3742	SG	CYS	3178	-14.573	34.029	45.310	1.00	34.46
ATOM	3743	N	PRO	3179	-14.520	28.936	46.563	1.00	26.83
ATOM	3744	CD	PRO	3179	-13.163	28.607	46.096	1.00	24.75
ATOM	3745	CA	PRO	3179	-15.180	27.763	47.150	1.00	28.17
ATOM	3746	CB	PRO	3179	-14.031	26.784	47.344	1.00	26.22
ATOM	3747	CG	PRO	3179	-13.171	27.086	46.151	1.00	27.38
ATOM	3748	C	PRO	3179	-15.828	28.181	48.473	1.00	29.86
ATOM	3749	O	PRO	3179	-15.203	28.851	49.308	1.00	30.65
ATOM	3750	N	SER	3180	-17.082	27.802	48.662	1.00	28.44
ATOM	3751	CA	SER	3180	-17.771	28.188	49.873	1.00	28.03
ATOM	3752	CB	SER	3180	-18.368	29.578	49.710	1.00	30.25
ATOM	3753	OG	SER	3180	-17.374	30.494	49.298	1.00	35.90
ATOM	3754	C	SER	3180	-18.870	27.233	50.223	1.00	27.25
ATOM	3755	O	SER	3180	-19.266	26.391	49.430	1.00	28.30
ATOM	3756	N	SER	3181	-19.371	27.378	51.433	1.00	27.12
ATOM	3757	CA	SER	3181	-20.441	26.530	51.890	1.00	27.21
ATOM	3758	CB	SER	3181	-19.862	25.312	52.612	1.00	29.78
ATOM	3759	OG	SER	3181	-20.880	24.385	52.940	1.00	35.40
ATOM	3760	C	SER	3181	-21.294	27.366	52.827	1.00	25.72
ATOM	3761	O	SER	3181	-20.961	28.518	53.126	1.00	23.32
ATOM	3762	N	GLY	3182	-22.392	26.780	53.283	1.00	25.53
ATOM	3763	CA	GLY	3182	-23.291	27.475	54.179	1.00	25.82
ATOM	3764	C	GLY	3182	-24.686	26.946	53.961	1.00	25.46
ATOM	3765	O	GLY	3182	-24.999	26.440	52.885	1.00	25.71
ATOM	3766	N	THR	3183	-25.527	27.051	54.980	1.00	25.41
ATOM	3767	CA	THR	3183	-26.889	26.569	54.864	1.00	24.64
ATOM	3768	CB	THR	3183	-27.064	25.185	55.567	1.00	23.85
ATOM	3769	OG1	THR	3183	-27.889	25.318	56.727	1.00	25.02
ATOM	3770	CG2	THR	3183	-25.720	24.624	55.972	1.00	21.75
ATOM	3771	C	THR	3183	-27.889	27.574	55.422	1.00	24.27
ATOM	3772	O	THR	3183	-27.669	28.166	56.474	1.00	25.47
ATOM	3773	N	PRO	3184	-28.986	27.816	54.686	1.00	25.01
ATOM	3774	CD	PRO	3184	-30.069	28.743	55.036	1.00	24.48
ATOM	3775	CA	PRO	3184	-29.250	27.171	53.393	1.00	23.19
ATOM	3776	CB	PRO	3184	-30.614	27.724	53.004	1.00	21.27
ATOM	3777	CG	PRO	3184	-30.648	29.052	53.681	1.00	25.55

Table 2

ATOM	3778	C	PRO	3184	-28.147	27.519	52.401	1.00	23.47
ATOM	3779	O	PRO	3184	-27.450	28.519	52.571	1.00	21.98
ATOM	3780	N	ASN	3185	-27.983	26.679	51.382	1.00	25.79
ATOM	3781	CA	ASN	3185	-26.933	26.867	50.394	1.00	26.96
ATOM	3782	CB	ASN	3185	-27.052	25.836	49.279	1.00	31.34
ATOM	3783	CG	ASN	3185	-25.694	25.452	48.706	1.00	39.03
ATOM	3784	OD1	ASN	3185	-25.091	26.198	47.924	1.00	41.63
ATOM	3785	ND2	ASN	3185	-25.192	24.292	49.116	1.00	42.36
ATOM	3786	C	ASN	3185	-26.929	28.262	49.817	1.00	25.86
ATOM	3787	O	ASN	3185	-27.906	28.698	49.225	1.00	27.89
ATOM	3788	N	PRO	3186	-25.811	28.981	49.984	1.00	24.67
ATOM	3789	CD	PRO	3186	-24.632	28.493	50.723	1.00	24.39
ATOM	3790	CA	PRO	3186	-25.596	30.351	49.517	1.00	25.60
ATOM	3791	CB	PRO	3186	-24.317	30.761	50.241	1.00	25.99
ATOM	3792	CG	PRO	3186	-23.568	29.479	50.326	1.00	24.50
ATOM	3793	C	PRO	3186	-25.515	30.608	48.007	1.00	26.93
ATOM	3794	O	PRO	3186	-25.245	29.710	47.197	1.00	26.83
ATOM	3795	N	THR	3187	-25.738	31.876	47.675	1.00	23.65
ATOM	3796	CA	THR	3187	-25.752	32.405	46.327	1.00	19.53
ATOM	3797	CB	THR	3187	-26.787	33.531	46.263	1.00	19.53
ATOM	3798	OG1	THR	3187	-28.028	32.977	45.838	1.00	21.66
ATOM	3799	CG2	THR	3187	-26.355	34.664	45.348	1.00	19.57
ATOM	3800	C	THR	3187	-24.390	32.921	45.883	1.00	20.94
ATOM	3801	O	THR	3187	-23.563	33.303	46.714	1.00	22.44
ATOM	3802	N	LEU	3188	-24.168	32.936	44.567	1.00	18.27
ATOM	3803	CA	LEU	3188	-22.904	33.402	44.011	1.00	14.85
ATOM	3804	CB	LEU	3188	-22.117	32.227	43.412	1.00	9.58
ATOM	3805	CG	LEU	3188	-20.579	32.262	43.367	1.00	8.72
ATOM	3806	CD1	LEU	3188	-20.100	31.213	42.370	1.00	6.67
ATOM	3807	CD2	LEU	3188	-20.055	33.648	42.982	1.00	5.30
ATOM	3808	C	LEU	3188	-23.130	34.454	42.929	1.00	15.82
ATOM	3809	O	LEU	3188	-23.698	34.177	41.878	1.00	16.74
ATOM	3810	N	ALA	3189	-22.666	35.662	43.199	1.00	15.51
ATOM	3811	CA	ALA	3189	-22.780	36.761	42.262	1.00	14.78
ATOM	3812	CB	ALA	3189	-23.719	37.826	42.820	1.00	9.44
ATOM	3813	C	ALA	3189	-21.370	37.330	42.055	1.00	17.07
ATOM	3814	O	ALA	3189	-20.496	37.188	42.915	1.00	16.25
ATOM	3815	N	TRP	3190	-21.149	37.977	40.918	1.00	18.41
ATOM	3816	CA	TRP	3190	-19.845	38.539	40.623	1.00	21.12
ATOM	3817	CB	TRP	3190	-19.174	37.703	39.548	1.00	21.41
ATOM	3818	CG	TRP	3190	-18.589	36.409	40.035	1.00	21.03
ATOM	3819	CD2	TRP	3190	-17.282	36.226	40.581	1.00	18.76
ATOM	3820	CE2	TRP	3190	-17.116	34.840	40.815	1.00	17.01
ATOM	3821	CE3	TRP	3190	-16.227	37.099	40.888	1.00	19.08
ATOM	3822	CD1	TRP	3190	-19.158	35.163	39.972	1.00	18.61
ATOM	3823	NE1	TRP	3190	-18.276	34.217	40.433	1.00	15.64
ATOM	3824	CZ2	TRP	3190	-15.936	34.304	41.343	1.00	15.99
ATOM	3825	CZ3	TRP	3190	-15.046	36.564	41.413	1.00	19.91
ATOM	3826	CH2	TRP	3190	-14.914	35.176	41.634	1.00	17.87
ATOM	3827	C	TRP	3190	-19.868	40.005	40.188	1.00	22.99
ATOM	3828	O	TRP	3190	-20.731	40.427	39.423	1.00	25.42
ATOM	3829	N	LEU	3191	-18.895	40.772	40.668	1.00	24.94
ATOM	3830	CA	LEU	3191	-18.794	42.193	40.355	1.00	26.37
ATOM	3831	CB	LEU	3191	-18.926	43.023	41.642	1.00	25.49
ATOM	3832	CG	LEU	3191	-20.162	42.870	42.541	1.00	28.84
ATOM	3833	CD1	LEU	3191	-20.127	43.967	43.607	1.00	28.14
ATOM	3834	CD2	LEU	3191	-21.447	42.979	41.728	1.00	27.31
ATOM	3835	C	LEU	3191	-17.470	42.560	39.670	1.00	29.34
ATOM	3836	O	LEU	3191	-16.453	41.874	39.821	1.00	31.79
ATOM	3837	N	LYS	3192	-17.489	43.647	38.909	1.00	30.17
ATOM	3838	CA	LYS	3192	-16.285	44.120	38.242	1.00	31.89

Table 2

ATOM	3839	CB	LYS	3192	-16.415	43.980	36.718	1.00	31.26
ATOM	3840	CG	LYS	3192	-15.190	44.450	35.920	1.00	29.80
ATOM	3841	CD	LYS	3192	-15.219	43.874	34.505	1.00	32.69
ATOM	3842	CE	LYS	3192	-14.429	44.713	33.485	1.00	34.71
ATOM	3843	NZ	LYS	3192	-12.968	44.837	33.773	1.00	34.92
ATOM	3844	C	LYS	3192	-16.137	45.582	38.656	1.00	33.72
ATOM	3845	O	LYS	3192	-16.972	46.426	38.325	1.00	34.33
ATOM	3846	N	ASN	3193	-15.086	45.867	39.413	1.00	34.19
ATOM	3847	CA	ASN	3193	-14.837	47.218	39.893	1.00	36.46
ATOM	3848	CB	ASN	3193	-14.382	48.111	38.740	1.00	35.57
ATOM	3849	CG	ASN	3193	-13.214	47.526	37.978	1.00	37.77
ATOM	3850	OD1	ASN	3193	-12.219	47.108	38.567	1.00	39.10
ATOM	3851	ND2	ASN	3193	-13.326	47.498	36.657	1.00	40.56
ATOM	3852	C	ASN	3193	-16.069	47.834	40.575	1.00	37.56
ATOM	3853	O	ASN	3193	-16.462	48.962	40.271	1.00	41.08
ATOM	3854	N	GLY	3194	-16.685	47.090	41.488	1.00	34.84
ATOM	3855	CA	GLY	3194	-17.833	47.615	42.201	1.00	33.97
ATOM	3856	C	GLY	3194	-19.197	47.440	41.565	1.00	35.07
ATOM	3857	O	GLY	3194	-20.161	47.117	42.258	1.00	34.48
ATOM	3858	N	ALA	3195	-19.297	47.657	40.260	1.00	35.47
ATOM	3859	CA	ALA	3195	-20.586	47.523	39.585	1.00	36.44
ATOM	3860	CB	ALA	3195	-20.598	48.366	38.309	1.00	34.68
ATOM	3861	C	ALA	3195	-20.904	46.066	39.255	1.00	36.34
ATOM	3862	O	ALA	3195	-20.033	45.194	39.332	1.00	34.71
ATOM	3863	N	ALA	3196	-22.161	45.808	38.903	1.00	35.91
ATOM	3864	CA	ALA	3196	-22.592	44.465	38.536	1.00	36.77
ATOM	3865	CB	ALA	3196	-24.109	44.435	38.340	1.00	35.46
ATOM	3866	C	ALA	3196	-21.880	44.093	37.235	1.00	37.93
ATOM	3867	O	ALA	3196	-21.557	44.966	36.430	1.00	39.51
ATOM	3868	N	PHE	3197	-21.634	42.804	37.026	1.00	38.80
ATOM	3869	CA	PHE	3197	-20.939	42.344	35.826	1.00	38.95
ATOM	3870	CB	PHE	3197	-19.657	41.607	36.220	1.00	38.39
ATOM	3871	CG	PHE	3197	-18.768	41.252	35.059	1.00	40.65
ATOM	3872	CD1	PHE	3197	-18.057	40.049	35.055	1.00	41.69
ATOM	3873	CD2	PHE	3197	-18.597	42.133	33.991	1.00	42.76
ATOM	3874	CE1	PHE	3197	-17.182	39.721	34.004	1.00	41.49
ATOM	3875	CE2	PHE	3197	-17.728	41.822	32.935	1.00	42.78
ATOM	3876	CZ	PHE	3197	-17.018	40.610	32.943	1.00	43.47
ATOM	3877	C	PHE	3197	-21.817	41.401	35.022	1.00	40.42
ATOM	3878	O	PHE	3197	-21.913	40.222	35.347	1.00	40.89
ATOM	3879	N	ALA	3198	-22.468	41.910	33.981	1.00	40.45
ATOM	3880	CA	ALA	3198	-23.311	41.057	33.149	1.00	40.04
ATOM	3881	CB	ALA	3198	-24.511	41.849	32.614	1.00	39.13
ATOM	3882	C	ALA	3198	-22.435	40.543	32.002	1.00	39.08
ATOM	3883	O	ALA	3198	-21.550	41.254	31.530	1.00	37.45
ATOM	3884	N	PRO	3199	-22.662	39.296	31.550	1.00	38.58
ATOM	3885	CD	PRO	3199	-23.725	38.385	31.994	1.00	38.44
ATOM	3886	CA	PRO	3199	-21.886	38.688	30.462	1.00	39.44
ATOM	3887	CB	PRO	3199	-22.601	37.356	30.224	1.00	38.24
ATOM	3888	CG	PRO	3199	-23.973	37.596	30.754	1.00	40.50
ATOM	3889	C	PRO	3199	-21.737	39.521	29.190	1.00	39.48
ATOM	3890	O	PRO	3199	-20.756	39.388	28.458	1.00	39.70
ATOM	3891	N	ASP	3200	-22.699	40.396	28.939	1.00	40.10
ATOM	3892	CA	ASP	3200	-22.660	41.248	27.757	1.00	39.53
ATOM	3893	CB	ASP	3200	-24.061	41.776	27.485	1.00	41.17
ATOM	3894	CG	ASP	3200	-25.128	40.902	28.114	1.00	46.36
ATOM	3895	OD1	ASP	3200	-25.218	39.708	27.744	1.00	48.73
ATOM	3896	OD2	ASP	3200	-25.865	41.403	28.995	1.00	47.90
ATOM	3897	C	ASP	3200	-21.686	42.402	27.979	1.00	37.25
ATOM	3898	O	ASP	3200	-21.412	43.182	27.071	1.00	35.42
ATOM	3899	N	HIS	3201	-21.165	42.500	29.198	1.00	36.00

Table 2

ATOM	3900	CA	HIS	3201	-20.219	43.552	29.555	1.00	35.44
ATOM	3901	CB	HIS	3201	-19.992	43.579	31.059	1.00	36.77
ATOM	3902	CG	HIS	3201	-21.091	44.239	31.825	1.00	37.96
ATOM	3903	CD2	HIS	3201	-21.052	45.092	32.874	1.00	39.27
ATOM	3904	ND1	HIS	3201	-22.423	44.025	31.550	1.00	36.90
ATOM	3905	CE1	HIS	3201	-23.160	44.721	32.397	1.00	39.05
ATOM	3906	NE2	HIS	3201	-22.353	45.376	33.211	1.00	40.51
ATOM	3907	C	HIS	3201	-18.878	43.361	28.882	1.00	34.44
ATOM	3908	O	HIS	3201	-18.025	44.238	28.941	1.00	33.90
ATOM	3909	N	ARG	3202	-18.684	42.208	28.256	1.00	33.68
ATOM	3910	CA	ARG	3202	-17.420	41.932	27.592	1.00	32.76
ATOM	3911	CB	ARG	3202	-16.428	41.326	28.579	1.00	28.87
ATOM	3912	CG	ARG	3202	-16.799	39.929	29.043	1.00	27.45
ATOM	3913	CD	ARG	3202	-15.666	39.314	29.833	1.00	24.91
ATOM	3914	NE	ARG	3202	-14.431	39.318	29.059	1.00	23.34
ATOM	3915	CZ	ARG	3202	-13.899	38.242	28.491	1.00	25.12
ATOM	3916	NH1	ARG	3202	-14.499	37.066	28.618	1.00	26.45
ATOM	3917	NH2	ARG	3202	-12.771	38.337	27.791	1.00	24.21
ATOM	3918	C	ARG	3202	-17.594	40.971	26.433	1.00	34.21
ATOM	3919	O	ARG	3202	-18.490	40.125	26.442	1.00	37.16
ATOM	3920	N	ILE	3203	-16.731	41.095	25.433	1.00	33.29
ATOM	3921	CA	ILE	3203	-16.800	40.198	24.295	1.00	32.59
ATOM	3922	CB	ILE	3203	-15.846	40.635	23.173	1.00	32.07
ATOM	3923	CG2	ILE	3203	-16.124	39.824	21.909	1.00	28.91
ATOM	3924	CG1	ILE	3203	-16.034	42.129	22.899	1.00	29.28
ATOM	3925	CD1	ILE	3203	-15.099	42.673	21.856	1.00	29.62
ATOM	3926	C	ILE	3203	-16.374	38.835	24.821	1.00	32.99
ATOM	3927	O	ILE	3203	-15.434	38.729	25.608	1.00	33.73
ATOM	3928	N	GLY	3204	-17.072	37.796	24.387	1.00	32.52
ATOM	3929	CA	GLY	3204	-16.759	36.460	24.848	1.00	30.79
ATOM	3930	C	GLY	3204	-17.756	36.066	25.918	1.00	31.96
ATOM	3931	O	GLY	3204	-18.175	34.911	25.991	1.00	30.10
ATOM	3932	N	GLY	3205	-18.150	37.039	26.740	1.00	32.74
ATOM	3933	CA	GLY	3205	-19.100	36.775	27.808	1.00	32.98
ATOM	3934	C	GLY	3205	-18.375	36.147	28.975	1.00	33.96
ATOM	3935	O	GLY	3205	-17.243	36.536	29.277	1.00	35.51
ATOM	3936	N	TYR	3206	-19.010	35.189	29.643	1.00	33.42
ATOM	3937	CA	TYR	3206	-18.360	34.507	30.760	1.00	33.07
ATOM	3938	CB	TYR	3206	-17.815	35.531	31.779	1.00	29.93
ATOM	3939	CG	TYR	3206	-18.845	36.172	32.686	1.00	30.96
ATOM	3940	CD1	TYR	3206	-19.494	35.426	33.682	1.00	31.46
ATOM	3941	CE1	TYR	3206	-20.397	36.012	34.552	1.00	27.77
ATOM	3942	CD2	TYR	3206	-19.142	37.532	32.585	1.00	31.20
ATOM	3943	CE2	TYR	3206	-20.047	38.129	33.458	1.00	30.81
ATOM	3944	CZ	TYR	3206	-20.667	37.356	34.436	1.00	31.02
ATOM	3945	OH	TYR	3206	-21.549	37.919	35.317	1.00	35.48
ATOM	3946	C	TYR	3206	-19.280	33.509	31.445	1.00	32.14
ATOM	3947	O	TYR	3206	-20.448	33.787	31.672	1.00	32.65
ATOM	3948	N	ALA	3207	-18.752	32.337	31.770	1.00	33.10
ATOM	3949	CA	ALA	3207	-19.554	31.326	32.440	1.00	33.85
ATOM	3950	CB	ALA	3207	-19.270	29.947	31.841	1.00	31.32
ATOM	3951	C	ALA	3207	-19.266	31.321	33.944	1.00	35.21
ATOM	3952	O	ALA	3207	-18.191	31.727	34.396	1.00	38.16
ATOM	3953	N	VAL	3208	-20.245	30.871	34.716	1.00	34.20
ATOM	3954	CA	VAL	3208	-20.107	30.776	36.160	1.00	32.45
ATOM	3955	CB	VAL	3208	-21.056	31.767	36.885	1.00	30.98
ATOM	3956	CG1	VAL	3208	-20.906	31.625	38.392	1.00	33.08
ATOM	3957	CG2	VAL	3208	-20.753	33.183	36.455	1.00	28.98
ATOM	3958	C	VAL	3208	-20.487	29.348	36.551	1.00	32.33
ATOM	3959	O	VAL	3208	-21.647	28.960	36.446	1.00	34.87
ATOM	3960	N	ALA	3209	-19.514	28.552	36.967	1.00	30.63

Table 2

ATOM	3961	CA	ALA	3209	-19.821	27.194	37.383	1.00	31.14
ATOM	3962	CB	ALA	3209	-18.619	26.293	37.167	1.00	32.43
ATOM	3963	C	ALA	3209	-20.212	27.232	38.864	1.00	31.16
ATOM	3964	O	ALA	3209	-19.363	27.196	39.748	1.00	29.00
ATOM	3965	N	TYR	3210	-21.509	27.315	39.126	1.00	33.46
ATOM	3966	CA	TYR	3210	-21.997	27.371	40.494	1.00	36.52
ATOM	3967	CB	TYR	3210	-23.525	27.484	40.498	1.00	36.08
ATOM	3968	CG	TYR	3210	-24.012	28.661	39.682	1.00	42.00
ATOM	3969	CD1	TYR	3210	-24.258	28.533	38.312	1.00	43.49
ATOM	3970	CE1	TYR	3210	-24.632	29.639	37.536	1.00	44.89
ATOM	3971	CD2	TYR	3210	-24.155	29.926	40.262	1.00	44.22
ATOM	3972	CE2	TYR	3210	-24.528	31.040	39.496	1.00	45.78
ATOM	3973	CZ	TYR	3210	-24.761	30.887	38.136	1.00	46.22
ATOM	3974	OH	TYR	3210	-25.109	31.983	37.377	1.00	47.71
ATOM	3975	C	TYR	3210	-21.537	26.169	41.320	1.00	36.86
ATOM	3976	O	TYR	3210	-21.359	26.259	42.535	1.00	38.85
ATOM	3977	N	ALA	3211	-21.319	25.043	40.665	1.00	35.89
ATOM	3978	CA	ALA	3211	-20.884	23.873	41.395	1.00	34.71
ATOM	3979	CB	ALA	3211	-20.942	22.654	40.489	1.00	36.35
ATOM	3980	C	ALA	3211	-19.463	24.079	41.923	1.00	34.75
ATOM	3981	O	ALA	3211	-19.112	23.608	43.002	1.00	33.71
ATOM	3982	N	THR	3212	-18.656	24.813	41.167	1.00	34.33
ATOM	3983	CA	THR	3212	-17.263	25.044	41.532	1.00	32.16
ATOM	3984	CB	THR	3212	-16.363	24.782	40.332	1.00	34.28
ATOM	3985	OG1	THR	3212	-16.919	23.714	39.561	1.00	40.52
ATOM	3986	CG2	THR	3212	-14.969	24.386	40.784	1.00	34.26
ATOM	3987	C	THR	3212	-16.965	26.449	42.032	1.00	30.76
ATOM	3988	O	THR	3212	-15.818	26.881	42.020	1.00	27.65
ATOM	3989	N	TRP	3213	-18.001	27.166	42.447	1.00	31.81
ATOM	3990	CA	TRP	3213	-17.857	28.525	42.968	1.00	29.81
ATOM	3991	CB	TRP	3213	-17.441	28.457	44.447	1.00	28.25
ATOM	3992	CG	TRP	3213	-18.421	27.688	45.280	1.00	27.86
ATOM	3993	CD2	TRP	3213	-19.641	28.189	45.843	1.00	28.56
ATOM	3994	CE2	TRP	3213	-20.288	27.104	46.470	1.00	27.84
ATOM	3995	CE3	TRP	3213	-20.248	29.450	45.879	1.00	28.08
ATOM	3996	CD1	TRP	3213	-18.380	26.360	45.580	1.00	27.37
ATOM	3997	NE1	TRP	3213	-19.497	26.001	46.293	1.00	27.93
ATOM	3998	CZ2	TRP	3213	-21.516	27.240	47.123	1.00	29.13
ATOM	3999	CZ3	TRP	3213	-21.468	29.586	46.526	1.00	28.50
ATOM	4000	CH2	TRP	3213	-22.088	28.487	47.141	1.00	29.91
ATOM	4001	C	TRP	3213	-16.877	29.390	42.167	1.00	29.53
ATOM	4002	O	TRP	3213	-16.084	30.166	42.716	1.00	26.76
ATOM	4003	N	SER	3214	-16.949	29.274	40.851	1.00	30.34
ATOM	4004	CA	SER	3214	-16.047	30.048	40.018	1.00	31.47
ATOM	4005	CB	SER	3214	-14.866	29.167	39.594	1.00	31.73
ATOM	4006	OG	SER	3214	-15.322	27.911	39.137	1.00	34.16
ATOM	4007	C	SER	3214	-16.691	30.688	38.792	1.00	30.14
ATOM	4008	O	SER	3214	-17.837	30.396	38.442	1.00	30.07
ATOM	4009	N	ILE	3215	-15.941	31.595	38.173	1.00	28.38
ATOM	4010	CA	ILE	3215	-16.368	32.294	36.970	1.00	27.47
ATOM	4011	CB	ILE	3215	-16.488	33.817	37.180	1.00	28.53
ATOM	4012	CG2	ILE	3215	-15.297	34.338	37.991	1.00	29.31
ATOM	4013	CG1	ILE	3215	-16.568	34.502	35.809	1.00	27.46
ATOM	4014	CD1	ILE	3215	-16.680	35.996	35.844	1.00	24.34
ATOM	4015	C	ILE	3215	-15.279	32.049	35.945	1.00	27.26
ATOM	4016	O	ILE	3215	-14.087	32.067	36.264	1.00	28.20
ATOM	4017	N	ILE	3216	-15.677	31.832	34.707	1.00	25.77
ATOM	4018	CA	ILE	3216	-14.691	31.556	33.690	1.00	26.67
ATOM	4019	CB	ILE	3216	-14.832	30.099	33.197	1.00	26.81
ATOM	4020	CG2	ILE	3216	-13.809	29.809	32.118	1.00	28.49
ATOM	4021	CG1	ILE	3216	-14.615	29.144	34.373	1.00	28.35

Table 2

ATOM	4022	CD1	ILE	3216	-14.607	27.674	34.002	1.00	26.95
ATOM	4023	C	ILE	3216	-14.762	32.504	32.511	1.00	26.79
ATOM	4024	O	ILE	3216	-15.796	32.579	31.828	1.00	24.85
ATOM	4025	N	MET	3217	-13.654	33.214	32.277	1.00	25.00
ATOM	4026	CA	MET	3217	-13.559	34.166	31.174	1.00	25.44
ATOM	4027	CB	MET	3217	-13.172	35.562	31.672	1.00	25.70
ATOM	4028	CG	MET	3217	-14.091	36.180	32.710	1.00	29.30
ATOM	4029	SD	MET	3217	-13.594	37.900	33.045	1.00	33.66
ATOM	4030	CE	MET	3217	-12.001	37.656	33.913	1.00	30.93
ATOM	4031	C	MET	3217	-12.530	33.740	30.137	1.00	24.78
ATOM	4032	O	MET	3217	-11.321	33.788	30.391	1.00	27.30
ATOM	4033	N	ASP	3218	-13.006	33.336	28.964	1.00	22.50
ATOM	4034	CA	ASP	3218	-12.108	32.936	27.892	1.00	20.29
ATOM	4035	CB	ASP	3218	-12.861	32.100	26.846	1.00	23.60
ATOM	4036	CG	ASP	3218	-12.907	30.607	27.200	1.00	29.86
ATOM	4037	OD1	ASP	3218	-12.875	30.278	28.407	1.00	33.46
ATOM	4038	OD2	ASP	3218	-12.984	29.755	26.276	1.00	32.53
ATOM	4039	C	ASP	3218	-11.498	34.175	27.239	1.00	18.77
ATOM	4040	O	ASP	3218	-12.027	35.283	27.338	1.00	14.25
ATOM	4041	N	SER	3219	-10.353	33.979	26.602	1.00	21.90
ATOM	4042	CA	SER	3219	-9.656	35.047	25.905	1.00	22.27
ATOM	4043	CB	SER	3219	-10.160	35.142	24.472	1.00	25.60
ATOM	4044	OG	SER	3219	-9.655	36.309	23.851	1.00	33.16
ATOM	4045	C	SER	3219	-9.782	36.404	26.556	1.00	21.83
ATOM	4046	O	SER	3219	-10.606	37.233	26.169	1.00	22.35
ATOM	4047	N	VAL	3220	-8.946	36.627	27.553	1.00	23.69
ATOM	4048	CA	VAL	3220	-8.931	37.897	28.255	1.00	21.63
ATOM	4049	CB	VAL	3220	-8.254	37.761	29.631	1.00	21.56
ATOM	4050	CG1	VAL	3220	-9.053	36.809	30.515	1.00	23.43
ATOM	4051	CG2	VAL	3220	-6.830	37.246	29.449	1.00	19.83
ATOM	4052	C	VAL	3220	-8.104	38.860	27.419	1.00	20.60
ATOM	4053	O	VAL	3220	-7.209	38.452	26.662	1.00	19.89
ATOM	4054	N	VAL	3221	-8.409	40.139	27.561	1.00	19.29
ATOM	4055	CA	VAL	3221	-7.684	41.179	26.851	1.00	19.94
ATOM	4056	CB	VAL	3221	-8.402	41.569	25.548	1.00	21.60
ATOM	4057	CG1	VAL	3221	-8.003	40.600	24.424	1.00	17.47
ATOM	4058	CG2	VAL	3221	-9.919	41.548	25.778	1.00	18.75
ATOM	4059	C	VAL	3221	-7.657	42.359	27.797	1.00	19.84
ATOM	4060	O	VAL	3221	-8.501	42.446	28.698	1.00	18.89
ATOM	4061	N	PRO	3222	-6.695	43.280	27.613	1.00	19.44
ATOM	4062	CD	PRO	3222	-5.765	43.319	26.469	1.00	19.55
ATOM	4063	CA	PRO	3222	-6.531	44.477	28.449	1.00	18.50
ATOM	4064	CB	PRO	3222	-5.757	45.420	27.542	1.00	17.22
ATOM	4065	CG	PRO	3222	-4.842	44.490	26.830	1.00	16.82
ATOM	4066	C	PRO	3222	-7.825	45.091	28.980	1.00	19.70
ATOM	4067	O	PRO	3222	-7.914	45.418	30.164	1.00	20.49
ATOM	4068	N	SER	3223	-8.831	45.231	28.122	1.00	20.64
ATOM	4069	CA	SER	3223	-10.106	45.805	28.552	1.00	22.52
ATOM	4070	CB	SER	3223	-11.114	45.832	27.390	1.00	21.18
ATOM	4071	OG	SER	3223	-11.721	44.565	27.215	1.00	22.75
ATOM	4072	C	SER	3223	-10.698	45.001	29.717	1.00	24.89
ATOM	4073	O	SER	3223	-11.542	45.502	30.473	1.00	27.76
ATOM	4074	N	ASP	3224	-10.262	43.754	29.864	1.00	24.30
ATOM	4075	CA	ASP	3224	-10.767	42.923	30.942	1.00	24.39
ATOM	4076	CB	ASP	3224	-10.550	41.438	30.629	1.00	24.86
ATOM	4077	CG	ASP	3224	-11.488	40.924	29.548	1.00	25.47
ATOM	4078	OD1	ASP	3224	-12.696	41.247	29.630	1.00	20.81
ATOM	4079	OD2	ASP	3224	-11.017	40.194	28.634	1.00	23.43
ATOM	4080	C	ASP	3224	-10.139	43.260	32.289	1.00	24.51
ATOM	4081	O	ASP	3224	-10.729	42.972	33.335	1.00	24.74
ATOM	4082	N	ALA	3225	-8.955	43.873	32.270	1.00	24.04

Table 2

ATOM	4083	CA	ALA	3225	-8.258	44.230	33.509	1.00	23.28
ATOM	4084	CB	ALA	3225	-7.059	45.133	33.199	1.00	19.86
ATOM	4085	C	ALA	3225	-9.186	44.913	34.517	1.00	23.54
ATOM	4086	O	ALA	3225	-9.977	45.792	34.155	1.00	23.35
ATOM	4087	N	GLY	3226	-9.095	44.495	35.779	1.00	24.35
ATOM	4088	CA	GLY	3226	-9.920	45.087	36.823	1.00	25.68
ATOM	4089	C	GLY	3226	-10.098	44.208	38.049	1.00	27.63
ATOM	4090	O	GLY	3226	-9.588	43.080	38.114	1.00	28.87
ATOM	4091	N	ASN	3227	-10.817	44.728	39.037	1.00	27.73
ATOM	4092	CA	ASN	3227	-11.081	43.971	40.258	1.00	28.14
ATOM	4093	CB	ASN	3227	-11.330	44.902	41.444	1.00	27.66
ATOM	4094	CG	ASN	3227	-10.204	45.866	41.659	1.00	33.30
ATOM	4095	OD1	ASN	3227	-9.038	45.467	41.717	1.00	34.86
ATOM	4096	ND2	ASN	3227	-10.535	47.155	41.777	1.00	35.26
ATOM	4097	C	ASN	3227	-12.328	43.132	40.047	1.00	27.43
ATOM	4098	O	ASN	3227	-13.320	43.615	39.500	1.00	29.97
ATOM	4099	N	TYR	3228	-12.279	41.877	40.475	1.00	23.65
ATOM	4100	CA	TYR	3228	-13.427	41.005	40.354	1.00	19.54
ATOM	4101	CB	TYR	3228	-13.120	39.857	39.420	1.00	16.85
ATOM	4102	CG	TYR	3228	-13.022	40.318	38.000	1.00	17.95
ATOM	4103	CD1	TYR	3228	-11.925	41.064	37.563	1.00	16.43
ATOM	4104	CE1	TYR	3228	-11.832	41.510	36.248	1.00	17.97
ATOM	4105	CD2	TYR	3228	-14.035	40.032	37.089	1.00	18.73
ATOM	4106	CE2	TYR	3228	-13.961	40.477	35.770	1.00	20.90
ATOM	4107	CZ	TYR	3228	-12.855	41.214	35.350	1.00	20.24
ATOM	4108	OH	TYR	3228	-12.764	41.617	34.030	1.00	18.53
ATOM	4109	C	TYR	3228	-13.787	40.503	41.730	1.00	20.76
ATOM	4110	O	TYR	3228	-12.956	39.934	42.440	1.00	20.32
ATOM	4111	N	THR	3229	-15.039	40.723	42.107	1.00	19.38
ATOM	4112	CA	THR	3229	-15.481	40.331	43.421	1.00	19.14
ATOM	4113	CB	THR	3229	-15.972	41.555	44.229	1.00	19.74
ATOM	4114	OG1	THR	3229	-14.893	42.487	44.387	1.00	15.99
ATOM	4115	CG2	THR	3229	-16.465	41.122	45.611	1.00	18.22
ATOM	4116	C	THR	3229	-16.581	39.314	43.413	1.00	20.02
ATOM	4117	O	THR	3229	-17.611	39.495	42.764	1.00	21.54
ATOM	4118	N	CYS	3230	-16.360	38.227	44.135	1.00	18.45
ATOM	4119	CA	CYS	3230	-17.393	37.234	44.226	1.00	18.73
ATOM	4120	C	CYS	3230	-18.151	37.601	45.487	1.00	16.50
ATOM	4121	O	CYS	3230	-17.580	38.147	46.423	1.00	15.77
ATOM	4122	CB	CYS	3230	-16.805	35.832	44.344	1.00	20.59
ATOM	4123	SG	CYS	3230	-15.821	35.551	45.839	1.00	28.94
ATOM	4124	N	ILE	3231	-19.447	37.339	45.497	1.00	15.83
ATOM	4125	CA	ILE	3231	-20.240	37.632	46.663	1.00	16.36
ATOM	4126	CB	ILE	3231	-21.087	38.880	46.449	1.00	17.80
ATOM	4127	CG2	ILE	3231	-22.099	39.031	47.572	1.00	17.03
ATOM	4128	CG1	ILE	3231	-20.155	40.096	46.402	1.00	17.70
ATOM	4129	CD1	ILE	3231	-20.854	41.396	46.183	1.00	17.16
ATOM	4130	C	ILE	3231	-21.117	36.449	46.978	1.00	17.26
ATOM	4131	O	ILE	3231	-22.016	36.111	46.209	1.00	21.97
ATOM	4132	N	VAL	3232	-20.827	35.815	48.112	1.00	16.47
ATOM	4133	CA	VAL	3232	-21.559	34.651	48.589	1.00	16.73
ATOM	4134	CB	VAL	3232	-20.592	33.560	49.054	1.00	16.46
ATOM	4135	CG1	VAL	3232	-21.368	32.336	49.523	1.00	15.36
ATOM	4136	CG2	VAL	3232	-19.640	33.204	47.919	1.00	15.79
ATOM	4137	C	VAL	3232	-22.446	35.062	49.752	1.00	19.52
ATOM	4138	O	VAL	3232	-21.998	35.738	50.679	1.00	19.11
ATOM	4139	N	GLU	3233	-23.710	34.660	49.703	1.00	23.22
ATOM	4140	CA	GLU	3233	-24.640	35.027	50.761	1.00	28.85
ATOM	4141	CB	GLU	3233	-25.045	36.495	50.607	1.00	35.57
ATOM	4142	CG	GLU	3233	-25.465	36.859	49.189	1.00	45.86

Table 2

ATOM	4143	CD	GLU	3233	-25.881	38.318	49.041	1.00	52.61
ATOM	4144	OE1	GLU	3233	-25.205	39.196	49.625	1.00	56.75
ATOM	4145	OE2	GLU	3233	-26.876	38.591	48.328	1.00	57.00
ATOM	4146	C	GLU	3233	-25.906	34.192	50.799	1.00	28.73
ATOM	4147	O	GLU	3233	-26.337	33.642	49.779	1.00	27.70
ATOM	4148	N	ASN	3234	-26.486	34.103	51.996	1.00	26.80
ATOM	4149	CA	ASN	3234	-27.738	33.394	52.223	1.00	25.14
ATOM	4150	CB	ASN	3234	-27.515	31.945	52.709	1.00	24.39
ATOM	4151	CG	ASN	3234	-26.752	31.856	54.025	1.00	26.09
ATOM	4152	OD1	ASN	3234	-26.658	32.824	54.781	1.00	25.60
ATOM	4153	ND2	ASN	3234	-26.217	30.668	54.313	1.00	27.06
ATOM	4154	C	ASN	3234	-28.500	34.206	53.260	1.00	25.03
ATOM	4155	O	ASN	3234	-28.059	35.292	53.649	1.00	21.71
ATOM	4156	N	ALA	3235	-29.639	33.688	53.710	1.00	25.62
ATOM	4157	CA	ALA	3235	-30.454	34.396	54.692	1.00	23.50
ATOM	4158	CB	ALA	3235	-31.732	33.593	54.997	1.00	22.56
ATOM	4159	C	ALA	3235	-29.701	34.677	55.987	1.00	22.86
ATOM	4160	O	ALA	3235	-30.190	35.405	56.846	1.00	25.91
ATOM	4161	N	TYR	3236	-28.503	34.134	56.134	1.00	20.91
ATOM	4162	CA	TYR	3236	-27.782	34.342	57.380	1.00	21.67
ATOM	4163	CB	TYR	3236	-27.652	33.010	58.105	1.00	24.91
ATOM	4164	CG	TYR	3236	-28.992	32.447	58.456	1.00	26.84
ATOM	4165	CD1	TYR	3236	-29.739	31.731	57.519	1.00	30.31
ATOM	4166	CE1	TYR	3236	-31.017	31.280	57.820	1.00	32.58
ATOM	4167	CD2	TYR	3236	-29.552	32.692	59.700	1.00	27.82
ATOM	4168	CE2	TYR	3236	-30.824	32.248	60.016	1.00	32.47
ATOM	4169	CZ	TYR	3236	-31.554	31.545	59.075	1.00	34.13
ATOM	4170	OH	TYR	3236	-32.822	31.132	59.398	1.00	34.11
ATOM	4171	C	TYR	3236	-26.426	35.013	57.330	1.00	20.53
ATOM	4172	O	TYR	3236	-25.739	35.076	58.345	1.00	17.76
ATOM	4173	N	GLY	3237	-26.039	35.511	56.163	1.00	20.51
ATOM	4174	CA	GLY	3237	-24.756	36.169	56.060	1.00	20.51
ATOM	4175	C	GLY	3237	-24.249	36.284	54.644	1.00	22.21
ATOM	4176	O	GLY	3237	-24.719	35.593	53.740	1.00	24.70
ATOM	4177	N	SER	3238	-23.278	37.167	54.459	1.00	22.08
ATOM	4178	CA	SER	3238	-22.687	37.385	53.159	1.00	23.41
ATOM	4179	CB	SER	3238	-23.323	38.592	52.480	1.00	24.80
ATOM	4180	OG	SER	3238	-22.605	38.916	51.301	1.00	29.81
ATOM	4181	C	SER	3238	-21.206	37.637	53.312	1.00	23.57
ATOM	4182	O	SER	3238	-20.793	38.467	54.109	1.00	25.04
ATOM	4183	N	ILE	3239	-20.403	36.918	52.549	1.00	24.19
ATOM	4184	CA	ILE	3239	-18.964	37.111	52.602	1.00	25.62
ATOM	4185	CB	ILE	3239	-18.230	35.806	53.039	1.00	24.95
ATOM	4186	CG2	ILE	3239	-18.633	35.441	54.456	1.00	22.17
ATOM	4187	CG1	ILE	3239	-18.587	34.641	52.107	1.00	25.70
ATOM	4188	CD1	ILE	3239	-17.955	33.301	52.512	1.00	20.71
ATOM	4189	C	ILE	3239	-18.542	37.528	51.207	1.00	26.33
ATOM	4190	O	ILE	3239	-19.295	37.345	50.260	1.00	28.84
ATOM	4191	N	ASN	3240	-17.360	38.112	51.073	1.00	27.41
ATOM	4192	CA	ASN	3240	-16.892	38.537	49.759	1.00	28.02
ATOM	4193	CB	ASN	3240	-17.263	39.990	49.501	1.00	31.85
ATOM	4194	CG	ASN	3240	-16.718	40.912	50.555	1.00	34.70
ATOM	4195	OD1	ASN	3240	-15.580	40.756	51.006	1.00	38.73
ATOM	4196	ND2	ASN	3240	-17.522	41.890	50.956	1.00	38.85
ATOM	4197	C	ASN	3240	-15.392	38.397	49.629	1.00	26.81
ATOM	4198	O	ASN	3240	-14.688	38.163	50.610	1.00	27.58
ATOM	4199	N	HIS	3241	-14.904	38.555	48.409	1.00	24.50
ATOM	4200	CA	HIS	3241	-13.481	38.452	48.159	1.00	24.61
ATOM	4201	CB	HIS	3241	-13.059	36.985	48.084	1.00	27.80
ATOM	4202	CG	HIS	3241	-11.579	36.796	47.994	1.00	30.76
ATOM	4203	CD2	HIS	3241	-10.801	36.293	47.006	1.00	32.96

Table 2

ATOM	4204	ND1	HIS	3241	-10.719	37.187	48.998	1.00	31.80
ATOM	4205	CE1	HIS	3241	-9.475	36.935	48.633	1.00	32.92
ATOM	4206	NE2	HIS	3241	-9.497	36.394	47.426	1.00	34.12
ATOM	4207	C	HIS	3241	-13.234	39.125	46.837	1.00	22.95
ATOM	4208	O	HIS	3241	-14.061	39.022	45.939	1.00	26.24
ATOM	4209	N	THR	3242	-12.112	39.820	46.706	1.00	20.64
ATOM	4210	CA	THR	3242	-11.828	40.499	45.453	1.00	21.13
ATOM	4211	CB	THR	3242	-11.786	42.047	45.618	1.00	20.79
ATOM	4212	OG1	THR	3242	-13.034	42.514	46.145	1.00	20.51
ATOM	4213	CG2	THR	3242	-11.545	42.723	44.260	1.00	19.11
ATOM	4214	C	THR	3242	-10.507	40.055	44.865	1.00	20.94
ATOM	4215	O	THR	3242	-9.541	39.852	45.590	1.00	20.69
ATOM	4216	N	TYR	3243	-10.482	39.909	43.542	1.00	20.75
ATOM	4217	CA	TYR	3243	-9.283	39.510	42.821	1.00	20.72
ATOM	4218	CB	TYR	3243	-9.511	38.227	42.024	1.00	19.39
ATOM	4219	CG	TYR	3243	-9.685	36.958	42.823	1.00	23.05
ATOM	4220	CD1	TYR	3243	-10.953	36.433	43.067	1.00	24.01
ATOM	4221	CE1	TYR	3243	-11.113	35.229	43.758	1.00	25.82
ATOM	4222	CD2	TYR	3243	-8.572	36.249	43.296	1.00	22.82
ATOM	4223	CE2	TYR	3243	-8.719	35.047	43.987	1.00	21.94
ATOM	4224	CZ	TYR	3243	-9.992	34.542	44.216	1.00	23.52
ATOM	4225	OH	TYR	3243	-10.156	33.357	44.902	1.00	22.85
ATOM	4226	C	TYR	3243	-8.899	40.593	41.828	1.00	21.98
ATOM	4227	O	TYR	3243	-9.756	41.162	41.150	1.00	23.12
ATOM	4228	N	ALA	3244	-7.609	40.882	41.731	1.00	24.08
ATOM	4229	CA	ALA	3244	-7.152	41.874	40.766	1.00	23.35
ATOM	4230	CB	ALA	3244	-5.918	42.613	41.300	1.00	20.36
ATOM	4231	C	ALA	3244	-6.800	41.067	39.517	1.00	22.90
ATOM	4232	O	ALA	3244	-6.313	39.942	39.621	1.00	21.75
ATOM	4233	N	LEU	3245	-7.087	41.601	38.337	1.00	23.40
ATOM	4234	CA	LEU	3245	-6.722	40.877	37.129	1.00	23.04
ATOM	4235	CB	LEU	3245	-7.949	40.348	36.383	1.00	20.49
ATOM	4236	CG	LEU	3245	-7.587	39.202	35.416	1.00	18.53
ATOM	4237	CD1	LEU	3245	-8.834	38.515	34.932	1.00	24.70
ATOM	4238	CD2	LEU	3245	-6.804	39.717	34.248	1.00	15.82
ATOM	4239	C	LEU	3245	-5.906	41.759	36.202	1.00	22.88
ATOM	4240	O	LEU	3245	-6.354	42.818	35.770	1.00	23.46
ATOM	4241	N	ASP	3246	-4.693	41.327	35.910	1.00	22.07
ATOM	4242	CA	ASP	3246	-3.872	42.098	35.014	1.00	26.75
ATOM	4243	CB	ASP	3246	-2.591	42.552	35.706	1.00	32.91
ATOM	4244	CG	ASP	3246	-1.813	43.540	34.871	1.00	38.77
ATOM	4245	OD1	ASP	3246	-2.431	44.502	34.348	1.00	42.43
ATOM	4246	OD2	ASP	3246	-0.586	43.353	34.738	1.00	43.87
ATOM	4247	C	ASP	3246	-3.572	41.224	33.808	1.00	26.40
ATOM	4248	O	ASP	3246	-3.356	40.017	33.942	1.00	24.28
ATOM	4249	N	VAL	3247	-3.582	41.845	32.632	1.00	26.01
ATOM	4250	CA	VAL	3247	-3.351	41.160	31.365	1.00	24.26
ATOM	4251	CB	VAL	3247	-4.631	41.197	30.500	1.00	25.02
ATOM	4252	CG1	VAL	3247	-4.390	40.513	29.147	1.00	24.28
ATOM	4253	CG2	VAL	3247	-5.775	40.534	31.254	1.00	24.22
ATOM	4254	C	VAL	3247	-2.228	41.828	30.592	1.00	23.02
ATOM	4255	O	VAL	3247	-2.191	43.048	30.493	1.00	26.47
ATOM	4256	N	VAL	3248	-1.317	41.037	30.041	1.00	21.59
ATOM	4257	CA	VAL	3248	-0.208	41.596	29.274	1.00	21.39
ATOM	4258	CB	VAL	3248	1.146	41.351	29.974	1.00	22.58
ATOM	4259	CG1	VAL	3248	2.256	42.033	29.211	1.00	24.91
ATOM	4260	CG2	VAL	3248	1.101	41.872	31.376	1.00	25.63
ATOM	4261	C	VAL	3248	-0.131	40.978	27.881	1.00	21.94
ATOM	4262	O	VAL	3248	-0.018	39.749	27.728	1.00	22.78
ATOM	4263	N	GLU	3249	-0.191	41.831	26.868	1.00	18.89
ATOM	4264	CA	GLU	3249	-0.106	41.373	25.498	1.00	20.08

Table 2

ATOM	4265	CB	GLU	3249	-0.585	42.473	24.547	1.00	23.18
ATOM	4266	CG	GLU	3249	-2.023	42.896	24.804	1.00	31.25
ATOM	4267	CD	GLU	3249	-2.467	44.090	23.971	1.00	34.98
ATOM	4268	OE1	GLU	3249	-1.752	45.120	23.967	1.00	36.08
ATOM	4269	OE2	GLU	3249	-3.545	44.002	23.335	1.00	39.35
ATOM	4270	C	GLU	3249	1.355	41.047	25.230	1.00	20.01
ATOM	4271	O	GLU	3249	2.214	41.920	25.359	1.00	18.96
ATOM	4272	N	ARG	3250	1.637	39.790	24.874	1.00	19.49
ATOM	4273	CA	ARG	3250	3.010	39.363	24.589	1.00	17.58
ATOM	4274	CB	ARG	3250	3.246	37.913	25.063	1.00	15.61
ATOM	4275	CG	ARG	3250	3.047	37.673	26.568	1.00	15.26
ATOM	4276	CD	ARG	3250	3.778	38.702	27.435	1.00	13.10
ATOM	4277	NE	ARG	3250	5.231	38.616	27.308	1.00	15.86
ATOM	4278	CZ	ARG	3250	5.984	37.658	27.849	1.00	16.04
ATOM	4279	NH1	ARG	3250	5.436	36.682	28.573	1.00	10.22
ATOM	4280	NH2	ARG	3250	7.294	37.679	27.655	1.00	12.79
ATOM	4281	C	ARG	3250	3.303	39.487	23.096	1.00	15.82
ATOM	4282	O	ARG	3250	2.445	39.189	22.273	1.00	17.84
ATOM	4283	N	ALA	3251	4.513	39.930	22.753	1.00	15.48
ATOM	4284	CA	ALA	3251	4.898	40.119	21.354	1.00	14.42
ATOM	4285	CB	ALA	3251	5.215	41.580	21.090	1.00	13.95
ATOM	4286	C	ALA	3251	6.076	39.269	20.952	1.00	15.60
ATOM	4287	O	ALA	3251	7.224	39.691	21.019	1.00	17.78
ATOM	4288	N	PRO	3252	5.802	38.051	20.517	1.00	16.45
ATOM	4289	CD	PRO	3252	4.527	37.344	20.712	1.00	14.69
ATOM	4290	CA	PRO	3252	6.853	37.129	20.098	1.00	15.71
ATOM	4291	CB	PRO	3252	6.210	35.778	20.345	1.00	11.93
ATOM	4292	CG	PRO	3252	4.781	36.053	20.008	1.00	11.24
ATOM	4293	C	PRO	3252	7.317	37.305	18.656	1.00	16.31
ATOM	4294	O	PRO	3252	7.055	36.464	17.812	1.00	19.07
ATOM	4295	N	HIS	3253	8.005	38.406	18.380	1.00	18.22
ATOM	4296	CA	HIS	3253	8.536	38.693	17.048	1.00	18.62
ATOM	4297	CB	HIS	3253	7.727	39.798	16.362	1.00	20.70
ATOM	4298	CG	HIS	3253	6.250	39.679	16.556	1.00	25.37
ATOM	4299	CD2	HIS	3253	5.376	40.459	17.236	1.00	26.10
ATOM	4300	ND1	HIS	3253	5.519	38.617	16.066	1.00	27.46
ATOM	4301	CE1	HIS	3253	4.256	38.744	16.441	1.00	28.08
ATOM	4302	NE2	HIS	3253	4.143	39.852	17.152	1.00	29.83
ATOM	4303	C	HIS	3253	9.956	39.198	17.291	1.00	18.94
ATOM	4304	O	HIS	3253	10.344	39.428	18.438	1.00	15.09
ATOM	4305	N	ARG	3254	10.744	39.357	16.232	1.00	20.26
ATOM	4306	CA	ARG	3254	12.089	39.872	16.425	1.00	21.29
ATOM	4307	CB	ARG	3254	12.957	39.675	15.168	1.00	23.70
ATOM	4308	CG	ARG	3254	12.702	40.615	13.987	1.00	24.93
ATOM	4309	CD	ARG	3254	11.433	40.262	13.215	1.00	31.22
ATOM	4310	NE	ARG	3254	11.665	40.088	11.774	1.00	34.34
ATOM	4311	CZ	ARG	3254	12.155	41.024	10.961	1.00	34.35
ATOM	4312	NH1	ARG	3254	12.483	42.222	11.425	1.00	37.58
ATOM	4313	NH2	ARG	3254	12.304	40.771	9.674	1.00	30.94
ATOM	4314	C	ARG	3254	11.906	41.357	16.738	1.00	20.88
ATOM	4315	O	ARG	3254	10.789	41.878	16.686	1.00	18.88
ATOM	4316	N	PRO	3255	12.987	42.054	17.095	1.00	19.70
ATOM	4317	CD	PRO	3255	14.381	41.624	17.300	1.00	18.17
ATOM	4318	CA	PRO	3255	12.821	43.480	17.396	1.00	19.74
ATOM	4319	CB	PRO	3255	14.238	43.912	17.802	1.00	20.14
ATOM	4320	CG	PRO	3255	14.863	42.624	18.296	1.00	18.36
ATOM	4321	C	PRO	3255	12.299	44.281	16.188	1.00	16.87
ATOM	4322	O	PRO	3255	12.444	43.851	15.046	1.00	11.59
ATOM	4323	N	ILE	3256	11.703	45.441	16.460	1.00	16.70
ATOM	4324	CA	ILE	3256	11.184	46.338	15.423	1.00	18.17
ATOM	4325	CB	ILE	3256	9.686	46.638	15.607	1.00	20.28

Table 2

ATOM	4326	CG2	ILE	3256	9.261	47.740	14.640	1.00	19.60
ATOM	4327	CG1	ILE	3256	8.842	45.380	15.397	1.00	22.58
ATOM	4328	CD1	ILE	3256	7.345	45.596	15.681	1.00	17.47
ATOM	4329	C	ILE	3256	11.887	47.688	15.543	1.00	19.66
ATOM	4330	O	ILE	3256	11.850	48.311	16.603	1.00	22.49
ATOM	4331	N	LEU	3257	12.520	48.151	14.474	1.00	19.13
ATOM	4332	CA	LEU	3257	13.193	49.447	14.522	1.00	20.83
ATOM	4333	CB	LEU	3257	14.501	49.420	13.727	1.00	17.27
ATOM	4334	CG	LEU	3257	15.576	48.370	14.019	1.00	17.87
ATOM	4335	CD1	LEU	3257	16.917	48.850	13.467	1.00	14.59
ATOM	4336	CD2	LEU	3257	15.692	48.142	15.504	1.00	19.59
ATOM	4337	C	LEU	3257	12.275	50.510	13.924	1.00	25.22
ATOM	4338	O	LEU	3257	11.457	50.206	13.048	1.00	30.51
ATOM	4339	N	GLN	3258	12.401	51.753	14.382	1.00	26.92
ATOM	4340	CA	GLN	3258	11.567	52.825	13.848	1.00	23.92
ATOM	4341	CB	GLN	3258	11.650	54.072	14.719	1.00	24.97
ATOM	4342	CG	GLN	3258	10.876	55.240	14.161	1.00	30.42
ATOM	4343	CD	GLN	3258	9.412	54.897	13.910	1.00	35.39
ATOM	4344	OE1	GLN	3258	8.653	54.619	14.845	1.00	36.83
ATOM	4345	NE2	GLN	3258	9.011	54.910	12.641	1.00	35.58
ATOM	4346	C	GLN	3258	12.052	53.151	12.455	1.00	22.49
ATOM	4347	O	GLN	3258	13.225	53.444	12.260	1.00	23.57
ATOM	4348	N	ALA	3259	11.145	53.086	11.486	1.00	23.47
ATOM	4349	CA	ALA	3259	11.475	53.373	10.094	1.00	23.33
ATOM	4350	CB	ALA	3259	10.231	53.236	9.234	1.00	22.24
ATOM	4351	C	ALA	3259	12.063	54.782	9.962	1.00	23.53
ATOM	4352	O	ALA	3259	11.590	55.728	10.604	1.00	25.64
ATOM	4353	N	GLY	3260	13.098	54.923	9.140	1.00	21.38
ATOM	4354	CA	GLY	3260	13.718	56.224	8.973	1.00	19.46
ATOM	4355	C	GLY	3260	14.940	56.397	9.859	1.00	19.56
ATOM	4356	O	GLY	3260	15.831	57.190	9.548	1.00	18.36
ATOM	4357	N	LEU	3261	14.991	55.655	10.961	1.00	17.37
ATOM	4358	CA	LEU	3261	16.118	55.743	11.873	1.00	18.85
ATOM	4359	CB	LEU	3261	15.607	55.920	13.303	1.00	20.55
ATOM	4360	CG	LEU	3261	14.753	57.166	13.510	1.00	21.64
ATOM	4361	CD1	LEU	3261	14.286	57.268	14.959	1.00	20.59
ATOM	4362	CD2	LEU	3261	15.584	58.385	13.125	1.00	21.95
ATOM	4363	C	LEU	3261	17.046	54.516	11.795	1.00	19.51
ATOM	4364	O	LEU	3261	16.584	53.370	11.773	1.00	19.28
ATOM	4365	N	PRO	3262	18.369	54.747	11.731	1.00	17.57
ATOM	4366	CD	PRO	3262	19.394	53.687	11.659	1.00	15.35
ATOM	4367	CA	PRO	3262	18.988	56.077	11.731	1.00	16.54
ATOM	4368	CB	PRO	3262	20.450	55.773	12.020	1.00	16.77
ATOM	4369	CG	PRO	3262	20.647	54.460	11.303	1.00	18.22
ATOM	4370	C	PRO	3262	18.791	56.732	10.365	1.00	16.01
ATOM	4371	O	PRO	3262	18.456	56.061	9.397	1.00	20.63
ATOM	4372	N	ALA	3263	18.995	58.035	10.285	1.00	14.64
ATOM	4373	CA	ALA	3263	18.824	58.752	9.028	1.00	10.82
ATOM	4374	CB	ALA	3263	17.789	59.866	9.207	1.00	2.08
ATOM	4375	C	ALA	3263	20.150	59.328	8.529	1.00	10.32
ATOM	4376	O	ALA	3263	21.013	59.716	9.321	1.00	9.06
ATOM	4377	N	ASN	3264	20.317	59.369	7.213	1.00	10.19
ATOM	4378	CA	ASN	3264	21.532	59.919	6.636	1.00	12.92
ATOM	4379	CB	ASN	3264	21.402	60.084	5.137	1.00	10.62
ATOM	4380	CG	ASN	3264	21.014	58.831	4.472	1.00	12.92
ATOM	4381	OD1	ASN	3264	21.294	57.745	4.983	1.00	18.04
ATOM	4382	ND2	ASN	3264	20.375	58.946	3.313	1.00	10.07
ATOM	4383	C	ASN	3264	21.831	61.285	7.208	1.00	16.47
ATOM	4384	O	ASN	3264	20.950	61.990	7.685	1.00	18.20
ATOM	4385	N	LYS	3265	23.091	61.664	7.127	1.00	21.11
ATOM	4386	CA	LYS	3265	23.513	62.947	7.615	1.00	23.74

Table 2

ATOM	4387	CB	LYS	3265	23.887	62.853	9.082	1.00	26.87
ATOM	4388	CG	LYS	3265	22.704	62.759	10.018	1.00	34.24
ATOM	4389	CD	LYS	3265	22.894	63.716	11.179	1.00	36.62
ATOM	4390	CE	LYS	3265	23.130	65.140	10.667	1.00	38.76
ATOM	4391	NZ	LYS	3265	23.421	66.112	11.766	1.00	45.11
ATOM	4392	C	LYS	3265	24.712	63.383	6.827	1.00	26.80
ATOM	4393	O	LYS	3265	25.515	62.554	6.386	1.00	26.18
ATOM	4394	N	THR	3266	24.805	64.691	6.628	1.00	29.75
ATOM	4395	CA	THR	3266	25.926	65.300	5.931	1.00	31.69
ATOM	4396	CB	THR	3266	25.485	66.033	4.646	1.00	34.37
ATOM	4397	OG1	THR	3266	24.834	65.111	3.755	1.00	36.34
ATOM	4398	CG2	THR	3266	26.694	66.636	3.947	1.00	35.21
ATOM	4399	C	THR	3266	26.423	66.313	6.950	1.00	31.31
ATOM	4400	O	THR	3266	25.628	67.032	7.548	1.00	28.58
ATOM	4401	N	VAL	3267	27.731	66.342	7.178	1.00	33.41
ATOM	4402	CA	VAL	3267	28.315	67.264	8.146	1.00	31.55
ATOM	4403	CB	VAL	3267	28.479	66.602	9.544	1.00	32.83
ATOM	4404	CG1	VAL	3267	27.126	66.138	10.058	1.00	31.71
ATOM	4405	CG2	VAL	3267	29.454	65.425	9.463	1.00	32.77
ATOM	4406	C	VAL	3267	29.676	67.735	7.674	1.00	30.75
ATOM	4407	O	VAL	3267	30.250	67.180	6.731	1.00	30.39
ATOM	4408	N	ALA	3268	30.190	68.761	8.346	1.00	30.65
ATOM	4409	CA	ALA	3268	31.480	69.334	8.004	1.00	26.28
ATOM	4410	CB	ALA	3268	31.474	70.814	8.300	1.00	24.19
ATOM	4411	C	ALA	3268	32.562	68.651	8.801	1.00	26.26
ATOM	4412	O	ALA	3268	32.304	68.141	9.896	1.00	24.95
ATOM	4413	N	LEU	3269	33.769	68.630	8.242	1.00	26.36
ATOM	4414	CA	LEU	3269	34.910	68.039	8.917	1.00	27.81
ATOM	4415	CB	LEU	3269	36.190	68.351	8.146	1.00	28.05
ATOM	4416	CG	LEU	3269	36.472	67.600	6.845	1.00	32.65
ATOM	4417	CD1	LEU	3269	37.560	68.322	6.079	1.00	31.75
ATOM	4418	CD2	LEU	3269	36.885	66.145	7.146	1.00	32.96
ATOM	4419	C	LEU	3269	34.988	68.653	10.313	1.00	29.41
ATOM	4420	O	LEU	3269	34.945	69.875	10.454	1.00	30.14
ATOM	4421	N	GLY	3270	35.073	67.811	11.338	1.00	29.51
ATOM	4422	CA	GLY	3270	35.168	68.314	12.694	1.00	33.16
ATOM	4423	C	GLY	3270	33.867	68.301	13.465	1.00	36.49
ATOM	4424	O	GLY	3270	33.864	68.345	14.695	1.00	38.70
ATOM	4425	N	SER	3271	32.757	68.237	12.744	1.00	38.64
ATOM	4426	CA	SER	3271	31.439	68.211	13.368	1.00	38.36
ATOM	4427	CB	SER	3271	30.339	68.295	12.298	1.00	41.39
ATOM	4428	OG	SER	3271	30.542	69.365	11.392	1.00	46.90
ATOM	4429	C	SER	3271	31.238	66.915	14.141	1.00	36.54
ATOM	4430	O	SER	3271	31.698	65.847	13.714	1.00	35.98
ATOM	4431	N	ASN	3272	30.554	67.005	15.276	1.00	34.22
ATOM	4432	CA	ASN	3272	30.248	65.810	16.046	1.00	32.39
ATOM	4433	CB	ASN	3272	30.088	66.137	17.521	1.00	33.02
ATOM	4434	CG	ASN	3272	31.275	66.891	18.065	1.00	39.47
ATOM	4435	OD1	ASN	3272	32.424	66.609	17.711	1.00	42.72
ATOM	4436	ND2	ASN	3272	31.011	67.861	18.934	1.00	44.46
ATOM	4437	C	ASN	3272	28.931	65.325	15.453	1.00	30.76
ATOM	4438	O	ASN	3272	28.197	66.104	14.839	1.00	29.02
ATOM	4439	N	VAL	3273	28.628	64.044	15.607	1.00	27.27
ATOM	4440	CA	VAL	3273	27.408	63.530	15.027	1.00	21.00
ATOM	4441	CB	VAL	3273	27.663	62.986	13.604	1.00	18.45
ATOM	4442	CG1	VAL	3273	29.088	62.570	13.473	1.00	17.09
ATOM	4443	CG2	VAL	3273	26.745	61.818	13.303	1.00	16.60
ATOM	4444	C	VAL	3273	26.784	62.471	15.876	1.00	20.13
ATOM	4445	O	VAL	3273	27.464	61.776	16.617	1.00	17.90
ATOM	4446	N	GLU	3274	25.465	62.375	15.764	1.00	22.07
ATOM	4447	CA	GLU	3274	24.688	61.401	16.509	1.00	23.18

Table 2

ATOM	4448	CB	GLU	3274	23.979	62.074	17.690	1.00	23.38
ATOM	4449	CG	GLU	3274	24.913	62.655	18.749	1.00	27.48
ATOM	4450	CD	GLU	3274	24.164	63.399	19.858	1.00	31.71
ATOM	4451	OE1	GLU	3274	23.681	64.538	19.628	1.00	32.69
ATOM	4452	OE2	GLU	3274	24.048	62.833	20.965	1.00	31.25
ATOM	4453	C	GLU	3274	23.649	60.737	15.610	1.00	21.95
ATOM	4454	O	GLU	3274	22.935	61.400	14.861	1.00	21.49
ATOM	4455	N	PHE	3275	23.597	59.418	15.672	1.00	19.24
ATOM	4456	CA	PHE	3275	22.626	58.674	14.916	1.00	19.23
ATOM	4457	CB	PHE	3275	23.287	57.514	14.191	1.00	19.10
ATOM	4458	CG	PHE	3275	24.127	57.924	13.024	1.00	19.09
ATOM	4459	CD1	PHE	3275	23.549	58.509	11.903	1.00	16.19
ATOM	4460	CD2	PHE	3275	25.502	57.691	13.032	1.00	18.92
ATOM	4461	CE1	PHE	3275	24.327	58.856	10.798	1.00	19.77
ATOM	4462	CE2	PHE	3275	26.296	58.033	11.930	1.00	19.55
ATOM	4463	CZ	PHE	3275	25.709	58.617	10.809	1.00	19.45
ATOM	4464	C	PHE	3275	21.674	58.146	15.976	1.00	21.86
ATOM	4465	O	PHE	3275	22.112	57.809	17.079	1.00	21.13
ATOM	4466	N	MET	3276	20.381	58.089	15.651	1.00	22.58
ATOM	4467	CA	MET	3276	19.374	57.594	16.581	1.00	20.39
ATOM	4468	CB	MET	3276	18.189	58.559	16.669	1.00	24.62
ATOM	4469	CG	MET	3276	18.569	60.006	16.901	1.00	28.34
ATOM	4470	SD	MET	3276	17.107	61.034	17.050	1.00	35.45
ATOM	4471	CE	MET	3276	16.966	61.152	18.854	1.00	30.79
ATOM	4472	C	MET	3276	18.875	56.255	16.096	1.00	17.79
ATOM	4473	O	MET	3276	19.039	55.897	14.940	1.00	18.35
ATOM	4474	N	CYS	3277	18.248	55.520	16.992	1.00	17.70
ATOM	4475	CA	CYS	3277	17.710	54.222	16.662	1.00	20.83
ATOM	4476	C	CYS	3277	16.625	53.942	17.694	1.00	20.81
ATOM	4477	O	CYS	3277	16.870	54.046	18.888	1.00	21.06
ATOM	4478	CB	CYS	3277	18.814	53.177	16.750	1.00	22.91
ATOM	4479	SG	CYS	3277	18.391	51.532	16.092	1.00	30.91
ATOM	4480	N	LYS	3278	15.424	53.617	17.232	1.00	21.63
ATOM	4481	CA	LYS	3278	14.317	53.330	18.133	1.00	22.79
ATOM	4482	CB	LYS	3278	13.116	54.204	17.774	1.00	22.66
ATOM	4483	CG	LYS	3278	12.549	55.036	18.920	1.00	25.77
ATOM	4484	CD	LYS	3278	11.525	54.270	19.754	1.00	27.26
ATOM	4485	CE	LYS	3278	10.787	55.171	20.761	1.00	32.36
ATOM	4486	NZ	LYS	3278	9.998	56.303	20.152	1.00	36.39
ATOM	4487	C	LYS	3278	13.964	51.854	17.991	1.00	22.92
ATOM	4488	O	LYS	3278	13.645	51.388	16.903	1.00	26.50
ATOM	4489	N	VAL	3279	14.010	51.128	19.101	1.00	19.71
ATOM	4490	CA	VAL	3279	13.740	49.699	19.101	1.00	17.12
ATOM	4491	CB	VAL	3279	15.001	48.917	19.619	1.00	17.18
ATOM	4492	CG1	VAL	3279	14.748	47.431	19.611	1.00	16.48
ATOM	4493	CG2	VAL	3279	16.218	49.251	18.782	1.00	14.76
ATOM	4494	C	VAL	3279	12.563	49.360	20.009	1.00	18.51
ATOM	4495	O	VAL	3279	12.359	50.014	21.036	1.00	17.83
ATOM	4496	N	TYR	3280	11.772	48.365	19.611	1.00	18.37
ATOM	4497	CA	TYR	3280	10.663	47.877	20.434	1.00	19.65
ATOM	4498	CB	TYR	3280	9.283	48.153	19.848	1.00	21.02
ATOM	4499	CG	TYR	3280	8.217	47.325	20.584	1.00	26.66
ATOM	4500	CD1	TYR	3280	7.618	47.794	21.765	1.00	26.80
ATOM	4501	CE1	TYR	3280	6.736	46.989	22.504	1.00	24.94
ATOM	4502	CD2	TYR	3280	7.890	46.025	20.160	1.00	24.05
ATOM	4503	CE2	TYR	3280	7.012	45.219	20.896	1.00	24.17
ATOM	4504	CZ	TYR	3280	6.442	45.706	22.064	1.00	25.11
ATOM	4505	OH	TYR	3280	5.602	44.905	22.807	1.00	26.64
ATOM	4506	C	TYR	3280	10.859	46.370	20.461	1.00	20.50
ATOM	4507	O	TYR	3280	11.101	45.749	19.423	1.00	20.46
ATOM	4508	N	SER	3281	10.724	45.771	21.632	1.00	18.62

Table 2

ATOM	4509	CA	SER	3281	10.951	44.352	21.722	1.00	18.26
ATOM	4510	CB	SER	3281	12.446	44.103	21.521	1.00	13.72
ATOM	4511	OG	SER	3281	12.762	42.733	21.584	1.00	23.33
ATOM	4512	C	SER	3281	10.489	43.821	23.067	1.00	20.13
ATOM	4513	O	SER	3281	11.004	44.249	24.092	1.00	23.43
ATOM	4514	N	ASP	3282	9.506	42.915	23.071	1.00	21.92
ATOM	4515	CA	ASP	3282	9.023	42.327	24.319	1.00	18.13
ATOM	4516	CB	ASP	3282	7.911	41.313	24.046	1.00	17.35
ATOM	4517	CG	ASP	3282	7.463	40.592	25.297	1.00	23.20
ATOM	4518	OD1	ASP	3282	6.423	39.898	25.266	1.00	21.51
ATOM	4519	OD2	ASP	3282	8.160	40.709	26.324	1.00	29.34
ATOM	4520	C	ASP	3282	10.238	41.675	24.993	1.00	17.69
ATOM	4521	O	ASP	3282	10.647	42.102	26.072	1.00	18.82
ATOM	4522	N	PRO	3283	10.837	40.640	24.379	1.00	16.79
ATOM	4523	CD	PRO	3283	10.440	39.777	23.257	1.00	16.75
ATOM	4524	CA	PRO	3283	12.003	40.079	25.072	1.00	18.89
ATOM	4525	CB	PRO	3283	12.267	38.779	24.315	1.00	19.64
ATOM	4526	CG	PRO	3283	11.723	39.043	22.959	1.00	17.42
ATOM	4527	C	PRO	3283	13.165	41.070	24.982	1.00	18.93
ATOM	4528	O	PRO	3283	13.200	41.882	24.064	1.00	19.18
ATOM	4529	N	GLN	3284	14.100	41.017	25.927	1.00	20.79
ATOM	4530	CA	GLN	3284	15.228	41.954	25.923	1.00	23.12
ATOM	4531	CB	GLN	3284	16.190	41.670	27.079	1.00	26.64
ATOM	4532	CG	GLN	3284	15.686	42.185	28.403	1.00	31.18
ATOM	4533	CD	GLN	3284	15.444	43.677	28.369	1.00	33.51
ATOM	4534	OE1	GLN	3284	14.530	44.187	29.025	1.00	37.06
ATOM	4535	NE2	GLN	3284	16.270	44.392	27.611	1.00	30.56
ATOM	4536	C	GLN	3284	16.024	41.991	24.632	1.00	22.12
ATOM	4537	O	GLN	3284	16.584	40.984	24.198	1.00	22.15
ATOM	4538	N	PRO	3285	16.088	43.170	24.000	1.00	21.03
ATOM	4539	CD	PRO	3285	15.338	44.399	24.314	1.00	18.24
ATOM	4540	CA	PRO	3285	16.831	43.327	22.748	1.00	20.96
ATOM	4541	CB	PRO	3285	16.141	44.520	22.100	1.00	16.42
ATOM	4542	CG	PRO	3285	15.890	45.387	23.289	1.00	17.30
ATOM	4543	C	PRO	3285	18.308	43.614	23.016	1.00	19.61
ATOM	4544	O	PRO	3285	18.652	44.229	24.019	1.00	17.18
ATOM	4545	N	HIS	3286	19.172	43.159	22.122	1.00	18.93
ATOM	4546	CA	HIS	3286	20.590	43.421	22.256	1.00	21.50
ATOM	4547	CB	HIS	3286	21.386	42.122	22.155	1.00	24.23
ATOM	4548	CG	HIS	3286	22.858	42.309	22.322	1.00	31.35
ATOM	4549	CD2	HIS	3286	23.614	42.468	23.436	1.00	35.30
ATOM	4550	ND1	HIS	3286	23.725	42.413	21.255	1.00	33.71
ATOM	4551	CE1	HIS	3286	24.949	42.629	21.702	1.00	35.42
ATOM	4552	NE2	HIS	3286	24.909	42.667	23.023	1.00	36.55
ATOM	4553	C	HIS	3286	20.909	44.351	21.094	1.00	20.80
ATOM	4554	O	HIS	3286	20.759	43.969	19.941	1.00	23.48
ATOM	4555	N	ILE	3287	21.334	45.573	21.391	1.00	20.39
ATOM	4556	CA	ILE	3287	21.621	46.542	20.339	1.00	20.95
ATOM	4557	CB	ILE	3287	20.963	47.928	20.640	1.00	20.11
ATOM	4558	CG2	ILE	3287	21.540	48.991	19.725	1.00	18.21
ATOM	4559	CG1	ILE	3287	19.453	47.874	20.409	1.00	17.87
ATOM	4560	CD1	ILE	3287	18.684	47.133	21.453	1.00	19.51
ATOM	4561	C	ILE	3287	23.098	46.781	20.079	1.00	22.79
ATOM	4562	O	ILE	3287	23.882	46.958	21.004	1.00	26.54
ATOM	4563	N	GLN	3288	23.465	46.802	18.803	1.00	24.49
ATOM	4564	CA	GLN	3288	24.847	47.044	18.394	1.00	26.54
ATOM	4565	CB	GLN	3288	25.519	45.772	17.891	1.00	27.11
ATOM	4566	CG	GLN	3288	25.897	44.755	18.923	1.00	29.11
ATOM	4567	CD	GLN	3288	26.700	43.633	18.300	1.00	32.97
ATOM	4568	OE1	GLN	3288	26.985	42.623	18.942	1.00	36.15
ATOM	4569	NE2	GLN	3288	27.077	43.809	17.035	1.00	34.32

Table 2

ATOM	4570	C	GLN	3288	24.871	48.020	17.240	1.00	27.48
ATOM	4571	O	GLN	3288	23.938	48.058	16.432	1.00	28.66
ATOM	4572	N	TRP	3289	25.933	48.811	17.157	1.00	26.47
ATOM	4573	CA	TRP	3289	26.067	49.736	16.045	1.00	26.74
ATOM	4574	CB	TRP	3289	26.374	51.152	16.533	1.00	23.41
ATOM	4575	CG	TRP	3289	25.166	51.857	17.065	1.00	23.14
ATOM	4576	CD2	TRP	3289	24.250	52.667	16.319	1.00	24.29
ATOM	4577	CE2	TRP	3289	23.249	53.110	17.221	1.00	24.25
ATOM	4578	CE3	TRP	3289	24.176	53.068	14.977	1.00	21.24
ATOM	4579	CD1	TRP	3289	24.696	51.836	18.350	1.00	23.53
ATOM	4580	NE1	TRP	3289	23.546	52.587	18.453	1.00	21.95
ATOM	4581	CZ2	TRP	3289	22.191	53.930	16.821	1.00	21.61
ATOM	4582	CZ3	TRP	3289	23.128	53.882	14.585	1.00	20.89
ATOM	4583	CH2	TRP	3289	22.148	54.303	15.505	1.00	21.46
ATOM	4584	C	TRP	3289	27.209	49.187	15.212	1.00	27.47
ATOM	4585	O	TRP	3289	28.209	48.729	15.770	1.00	26.21
ATOM	4586	N	LEU	3290	27.062	49.206	13.890	1.00	27.19
ATOM	4587	CA	LEU	3290	28.112	48.670	13.030	1.00	30.23
ATOM	4588	CB	LEU	3290	27.654	47.363	12.364	1.00	30.65
ATOM	4589	CG	LEU	3290	26.744	46.363	13.088	1.00	32.74
ATOM	4590	CD1	LEU	3290	26.405	45.229	12.126	1.00	32.45
ATOM	4591	CD2	LEU	3290	27.415	45.814	14.331	1.00	31.09
ATOM	4592	C	LEU	3290	28.540	49.627	11.925	1.00	31.63
ATOM	4593	O	LEU	3290	27.706	50.259	11.281	1.00	32.46
ATOM	4594	N	LYS	3291	29.847	49.725	11.706	1.00	31.42
ATOM	4595	CA	LYS	3291	30.367	50.556	10.636	1.00	30.67
ATOM	4596	CB	LYS	3291	31.649	51.270	11.086	1.00	32.02
ATOM	4597	CG	LYS	3291	32.367	52.067	9.979	1.00	34.48
ATOM	4598	CD	LYS	3291	31.482	53.169	9.410	1.00	36.64
ATOM	4599	CE	LYS	3291	32.240	54.108	8.483	1.00	37.18
ATOM	4600	NZ	LYS	3291	32.575	53.496	7.171	1.00	40.53
ATOM	4601	C	LYS	3291	30.677	49.592	9.483	1.00	31.41
ATOM	4602	O	LYS	3291	31.101	48.457	9.703	1.00	32.63
ATOM	4603	N	HIS	3292	30.450	50.025	8.257	1.00	29.58
ATOM	4604	CA	HIS	3292	30.744	49.181	7.123	1.00	30.27
ATOM	4605	CB	HIS	3292	29.750	49.477	6.012	1.00	32.12
ATOM	4606	CG	HIS	3292	28.356	49.047	6.340	1.00	35.10
ATOM	4607	CD2	HIS	3292	27.449	49.557	7.208	1.00	37.52
ATOM	4608	ND1	HIS	3292	27.782	47.917	5.807	1.00	36.31
ATOM	4609	CE1	HIS	3292	26.580	47.746	6.332	1.00	37.82
ATOM	4610	NE2	HIS	3292	26.356	48.728	7.185	1.00	36.14
ATOM	4611	C	HIS	3292	32.167	49.447	6.674	1.00	33.55
ATOM	4612	O	HIS	3292	32.593	50.595	6.598	1.00	37.07
ATOM	4613	N	ILE	3293	32.923	48.393	6.403	1.00	36.32
ATOM	4614	CA	ILE	3293	34.305	48.570	5.961	1.00	38.28
ATOM	4615	CB	ILE	3293	35.306	47.935	6.941	1.00	38.79
ATOM	4616	CG2	ILE	3293	36.727	48.397	6.594	1.00	39.12
ATOM	4617	CG1	ILE	3293	34.959	48.331	8.374	1.00	40.05
ATOM	4618	CD1	ILE	3293	35.815	47.629	9.413	1.00	42.09
ATOM	4619	C	ILE	3293	34.524	47.942	4.592	1.00	36.87
ATOM	4620	O	ILE	3293	34.286	46.754	4.413	1.00	35.64
ATOM	4621	N	PRO	3306	28.867	41.727	3.498	1.00	50.53
ATOM	4622	CD	PRO	3306	27.398	41.849	3.543	1.00	49.75
ATOM	4623	CA	PRO	3306	29.512	43.010	3.811	1.00	49.98
ATOM	4624	CB	PRO	3306	28.333	43.986	3.832	1.00	48.87
ATOM	4625	CG	PRO	3306	27.204	43.134	4.329	1.00	48.75
ATOM	4626	C	PRO	3306	30.270	42.985	5.142	1.00	49.99
ATOM	4627	O	PRO	3306	29.706	42.596	6.172	1.00	50.18
ATOM	4628	N	TYR	3307	31.541	43.393	5.126	1.00	49.25
ATOM	4629	CA	TYR	3307	32.328	43.399	6.363	1.00	49.05
ATOM	4630	CB	TYR	3307	33.815	43.615	6.087	1.00	53.62

Table 2

ATOM	4631	CG	TYR	3307	34.323	42.890	4.877	1.00	58.69
ATOM	4632	CD1	TYR	3307	34.194	43.454	3.605	1.00	61.80
ATOM	4633	CE1	TYR	3307	34.648	42.790	2.470	1.00	63.44
ATOM	4634	CD2	TYR	3307	34.919	41.633	4.991	1.00	60.87
ATOM	4635	CE2	TYR	3307	35.376	40.952	3.861	1.00	63.67
ATOM	4636	CZ	TYR	3307	35.236	41.539	2.604	1.00	64.69
ATOM	4637	OH	TYR	3307	35.680	40.877	1.482	1.00	65.93
ATOM	4638	C	TYR	3307	31.841	44.510	7.274	1.00	46.00
ATOM	4639	O	TYR	3307	31.348	45.536	6.810	1.00	45.20
ATOM	4640	N	VAL	3308	31.977	44.305	8.574	1.00	42.35
ATOM	4641	CA	VAL	3308	31.540	45.311	9.514	1.00	42.49
ATOM	4642	CB	VAL	3308	30.100	45.020	10.042	1.00	41.34
ATOM	4643	CG1	VAL	3308	29.126	44.929	8.875	1.00	38.13
ATOM	4644	CG2	VAL	3308	30.076	43.740	10.854	1.00	39.99
ATOM	4645	C	VAL	3308	32.504	45.398	10.679	1.00	42.70
ATOM	4646	O	VAL	3308	33.301	44.492	10.919	1.00	41.81
ATOM	4647	N	GLN	3309	32.427	46.512	11.394	1.00	44.15
ATOM	4648	CA	GLN	3309	33.273	46.765	12.549	1.00	45.11
ATOM	4649	CB	GLN	3309	34.236	47.914	12.245	1.00	47.30
ATOM	4650	CG	GLN	3309	35.242	48.211	13.350	1.00	53.22
ATOM	4651	CD	GLN	3309	35.912	49.576	13.194	1.00	54.67
ATOM	4652	OE1	GLN	3309	36.545	49.870	12.171	1.00	53.51
ATOM	4653	NE2	GLN	3309	35.777	50.414	14.219	1.00	56.15
ATOM	4654	C	GLN	3309	32.346	47.156	13.691	1.00	45.06
ATOM	4655	O	GLN	3309	31.785	48.252	13.703	1.00	44.56
ATOM	4656	N	ILE	3310	32.157	46.242	14.637	1.00	44.25
ATOM	4657	CA	ILE	3310	31.300	46.520	15.779	1.00	43.66
ATOM	4658	CB	ILE	3310	31.339	45.393	16.829	1.00	43.39
ATOM	4659	CG2	ILE	3310	30.367	45.716	17.973	1.00	42.44
ATOM	4660	CG1	ILE	3310	31.027	44.054	16.167	1.00	44.49
ATOM	4661	CD1	ILE	3310	29.676	43.946	15.554	1.00	45.12
ATOM	4662	C	ILE	3310	31.856	47.788	16.426	1.00	44.91
ATOM	4663	O	ILE	3310	33.062	47.895	16.668	1.00	47.75
ATOM	4664	N	LEU	3311	30.983	48.745	16.700	1.00	44.00
ATOM	4665	CA	LEU	3311	31.416	49.981	17.314	1.00	44.24
ATOM	4666	CB	LEU	3311	30.826	51.171	16.568	1.00	41.92
ATOM	4667	CG	LEU	3311	31.261	51.359	15.118	1.00	39.13
ATOM	4668	CD1	LEU	3311	30.663	52.645	14.587	1.00	37.21
ATOM	4669	CD2	LEU	3311	32.783	51.415	15.040	1.00	39.70
ATOM	4670	C	LEU	3311	30.994	50.028	18.777	1.00	47.49
ATOM	4671	O	LEU	3311	31.833	50.177	19.670	1.00	48.37
ATOM	4672	N	LYS	3312	29.692	49.894	19.011	1.00	50.65
ATOM	4673	CA	LYS	3312	29.133	49.913	20.362	1.00	54.46
ATOM	4674	CB	LYS	3312	28.221	51.136	20.515	1.00	53.77
ATOM	4675	CG	LYS	3312	28.241	51.855	21.869	1.00	52.70
ATOM	4676	CD	LYS	3312	27.424	53.137	21.769	1.00	51.76
ATOM	4677	CE	LYS	3312	27.481	53.952	23.049	1.00	52.83
ATOM	4678	NZ	LYS	3312	26.811	55.293	22.886	1.00	53.72
ATOM	4679	C	LYS	3312	28.343	48.607	20.616	1.00	57.49
ATOM	4680	O	LYS	3312	27.749	48.046	19.687	1.00	59.53
ATOM	4681	N	THR	3313	28.359	48.115	21.860	1.00	59.16
ATOM	4682	CA	THR	3313	27.664	46.873	22.244	1.00	60.02
ATOM	4683	CB	THR	3313	28.689	45.666	22.326	1.00	59.43
ATOM	4684	OG1	THR	3313	29.391	45.525	21.079	1.00	56.36
ATOM	4685	CG2	THR	3313	27.970	44.349	22.630	1.00	59.12
ATOM	4686	C	THR	3313	26.983	47.091	23.615	1.00	61.92
ATOM	4687	O	THR	3313	27.650	47.438	24.597	1.00	62.79
ATOM	4688	N	ALA	3314	25.661	46.915	23.686	1.00	63.68
ATOM	4689	CA	ALA	3314	24.932	47.099	24.951	1.00	64.89
ATOM	4690	CB	ALA	3314	23.410	47.023	24.709	1.00	63.92
ATOM	4691	C	ALA	3314	25.347	46.050	25.991	1.00	66.12

Table 2

ATOM	4692	O	ALA	3314	25.748	44.927	25.650	1.00	67.50
ATOM	4693	N	GLU	3324	20.459	54.050	22.281	1.00	34.45
ATOM	4694	CA	GLU	3324	19.646	54.513	21.164	1.00	33.67
ATOM	4695	CB	GLU	3324	18.445	55.300	21.667	1.00	34.05
ATOM	4696	CG	GLU	3324	17.497	54.551	22.561	1.00	41.24
ATOM	4697	CD	GLU	3324	16.378	55.455	23.059	1.00	47.04
ATOM	4698	OE1	GLU	3324	16.315	56.614	22.587	1.00	50.25
ATOM	4699	OE2	GLU	3324	15.562	55.020	23.908	1.00	49.44
ATOM	4700	C	GLU	3324	20.436	55.413	20.221	1.00	32.17
ATOM	4701	O	GLU	3324	20.021	55.642	19.087	1.00	34.70
ATOM	4702	N	VAL	3325	21.566	55.939	20.675	1.00	28.22
ATOM	4703	CA	VAL	3325	22.332	56.815	19.808	1.00	26.02
ATOM	4704	CB	VAL	3325	22.258	58.306	20.284	1.00	25.39
ATOM	4705	CG1	VAL	3325	21.084	58.494	21.229	1.00	19.03
ATOM	4706	CG2	VAL	3325	23.565	58.739	20.923	1.00	22.06
ATOM	4707	C	VAL	3325	23.787	56.413	19.655	1.00	25.59
ATOM	4708	O	VAL	3325	24.409	55.904	20.582	1.00	22.40
ATOM	4709	N	LEU	3326	24.308	56.631	18.454	1.00	26.42
ATOM	4710	CA	LEU	3326	25.696	56.339	18.140	1.00	26.12
ATOM	4711	CB	LEU	3326	25.821	55.622	16.786	1.00	21.59
ATOM	4712	CG	LEU	3326	27.247	55.571	16.215	1.00	22.26
ATOM	4713	CD1	LEU	3326	28.197	55.075	17.290	1.00	20.08
ATOM	4714	CD2	LEU	3326	27.315	54.682	14.976	1.00	17.56
ATOM	4715	C	LEU	3326	26.333	57.708	18.075	1.00	27.14
ATOM	4716	O	LEU	3326	25.902	58.557	17.300	1.00	28.80
ATOM	4717	N	HIS	3327	27.350	57.940	18.892	1.00	30.53
ATOM	4718	CA	HIS	3327	27.980	59.253	18.896	1.00	32.36
ATOM	4719	CB	HIS	3327	27.952	59.818	20.318	1.00	34.97
ATOM	4720	CG	HIS	3327	28.135	61.304	20.380	1.00	42.68
ATOM	4721	CD2	HIS	3327	28.575	62.189	19.457	1.00	45.04
ATOM	4722	ND1	HIS	3327	27.860	62.038	21.515	1.00	45.87
ATOM	4723	CE1	HIS	3327	28.124	63.313	21.284	1.00	45.71
ATOM	4724	NE2	HIS	3327	28.560	63.433	20.045	1.00	44.63
ATOM	4725	C	HIS	3327	29.400	59.293	18.317	1.00	30.23
ATOM	4726	O	HIS	3327	30.319	58.662	18.826	1.00	29.19
ATOM	4727	N	LEU	3328	29.561	60.040	17.234	1.00	28.95
ATOM	4728	CA	LEU	3328	30.857	60.180	16.595	1.00	30.99
ATOM	4729	CB	LEU	3328	30.703	60.100	15.074	1.00	29.16
ATOM	4730	CG	LEU	3328	29.951	58.865	14.555	1.00	29.23
ATOM	4731	CD1	LEU	3328	29.728	58.998	13.062	1.00	29.68
ATOM	4732	CD2	LEU	3328	30.732	57.594	14.869	1.00	26.10
ATOM	4733	C	LEU	3328	31.422	61.534	17.007	1.00	33.81
ATOM	4734	O	LEU	3328	30.798	62.573	16.784	1.00	32.11
ATOM	4735	N	ARG	3329	32.600	61.518	17.623	1.00	37.31
ATOM	4736	CA	ARG	3329	33.235	62.750	18.077	1.00	39.81
ATOM	4737	CB	ARG	3329	34.451	62.424	18.939	1.00	40.20
ATOM	4738	C	ARG	3329	33.643	63.685	16.936	1.00	41.53
ATOM	4739	O	ARG	3329	32.839	63.984	16.052	1.00	43.65
ATOM	4740	N	ASN	3330	34.890	64.146	16.957	1.00	42.05
ATOM	4741	CA	ASN	3330	35.387	65.074	15.946	1.00	42.40
ATOM	4742	CB	ASN	3330	36.678	65.732	16.431	1.00	45.71
ATOM	4743	CG	ASN	3330	37.104	66.884	15.547	1.00	50.73
ATOM	4744	OD1	ASN	3330	37.765	66.693	14.521	1.00	51.29
ATOM	4745	ND2	ASN	3330	36.711	68.098	15.933	1.00	53.42
ATOM	4746	C	ASN	3330	35.612	64.418	14.595	1.00	40.92
ATOM	4747	O	ASN	3330	36.744	64.184	14.175	1.00	41.46
ATOM	4748	N	VAL	3331	34.506	64.154	13.916	1.00	39.86
ATOM	4749	CA	VAL	3331	34.482	63.510	12.612	1.00	38.36
ATOM	4750	CB	VAL	3331	33.044	63.514	12.083	1.00	36.46
ATOM	4751	CG1	VAL	3331	33.009	63.151	10.607	1.00	35.11
ATOM	4752	CG2	VAL	3331	32.221	62.536	12.897	1.00	35.94

Table 2

ATOM	4753	C	VAL	3331	35.413	64.059	11.533	1.00	38.81
ATOM	4754	O	VAL	3331	35.677	65.254	11.476	1.00	39.52
ATOM	4755	N	SER	3332	35.900	63.155	10.684	1.00	39.14
ATOM	4756	CA	SER	3332	36.782	63.476	9.561	1.00	41.46
ATOM	4757	CB	SER	3332	38.215	63.009	9.842	1.00	42.72
ATOM	4758	OG	SER	3332	38.306	61.593	9.834	1.00	45.96
ATOM	4759	C	SER	3332	36.257	62.760	8.303	1.00	41.31
ATOM	4760	O	SER	3332	35.185	62.150	8.326	1.00	40.97
ATOM	4761	N	PHE	3333	37.006	62.832	7.208	1.00	39.77
ATOM	4762	CA	PHE	3333	36.580	62.170	5.984	1.00	40.03
ATOM	4763	CB	PHE	3333	37.557	62.455	4.838	1.00	40.48
ATOM	4764	CG	PHE	3333	37.425	63.836	4.262	1.00	42.80
ATOM	4765	CD1	PHE	3333	38.497	64.724	4.291	1.00	44.08
ATOM	4766	CD2	PHE	3333	36.218	64.261	3.710	1.00	41.76
ATOM	4767	CE1	PHE	3333	38.366	66.017	3.783	1.00	43.95
ATOM	4768	CE2	PHE	3333	36.080	65.549	3.201	1.00	40.09
ATOM	4769	CZ	PHE	3333	37.153	66.427	3.237	1.00	42.04
ATOM	4770	C	PHE	3333	36.470	60.668	6.192	1.00	40.10
ATOM	4771	O	PHE	3333	35.508	60.042	5.756	1.00	37.43
ATOM	4772	N	GLU	3334	37.459	60.093	6.869	1.00	41.76
ATOM	4773	CA	GLU	3334	37.462	58.660	7.115	1.00	41.91
ATOM	4774	CB	GLU	3334	38.665	58.259	7.963	1.00	44.33
ATOM	4775	CG	GLU	3334	38.832	56.755	8.062	1.00	51.69
ATOM	4776	CD	GLU	3334	39.519	56.324	9.340	1.00	56.76
ATOM	4777	OE1	GLU	3334	40.658	56.776	9.582	1.00	59.33
ATOM	4778	OE2	GLU	3334	38.919	55.531	10.104	1.00	59.43
ATOM	4779	C	GLU	3334	36.179	58.214	7.810	1.00	39.11
ATOM	4780	O	GLU	3334	35.738	57.074	7.654	1.00	39.71
ATOM	4781	N	ASP	3335	35.582	59.111	8.579	1.00	35.54
ATOM	4782	CA	ASP	3335	34.349	58.788	9.280	1.00	33.54
ATOM	4783	CB	ASP	3335	34.019	59.886	10.300	1.00	36.08
ATOM	4784	CG	ASP	3335	35.021	59.951	11.438	1.00	37.24
ATOM	4785	OD1	ASP	3335	35.176	58.940	12.148	1.00	38.81
ATOM	4786	OD2	ASP	3335	35.651	61.012	11.628	1.00	36.88
ATOM	4787	C	ASP	3335	33.185	58.631	8.298	1.00	30.04
ATOM	4788	O	ASP	3335	32.156	58.029	8.616	1.00	27.28
ATOM	4789	N	ALA	3336	33.344	59.177	7.102	1.00	28.20
ATOM	4790	CA	ALA	3336	32.280	59.082	6.116	1.00	28.61
ATOM	4791	CB	ALA	3336	32.669	59.814	4.835	1.00	27.15
ATOM	4792	C	ALA	3336	32.003	57.614	5.827	1.00	27.66
ATOM	4793	O	ALA	3336	32.885	56.770	5.972	1.00	25.77
ATOM	4794	N	GLY	3337	30.767	57.311	5.440	1.00	26.67
ATOM	4795	CA	GLY	3337	30.417	55.942	5.130	1.00	25.15
ATOM	4796	C	GLY	3337	29.093	55.504	5.701	1.00	25.47
ATOM	4797	O	GLY	3337	28.368	56.292	6.303	1.00	26.07
ATOM	4798	N	GLU	3338	28.790	54.222	5.530	1.00	26.41
ATOM	4799	CA	GLU	3338	27.536	53.653	6.000	1.00	24.31
ATOM	4800	CB	GLU	3338	27.053	52.616	4.989	1.00	25.61
ATOM	4801	CG	GLU	3338	25.817	51.840	5.414	1.00	32.75
ATOM	4802	CD	GLU	3338	25.319	50.907	4.320	1.00	35.06
ATOM	4803	OE1	GLU	3338	26.163	50.234	3.679	1.00	36.67
ATOM	4804	OE2	GLU	3338	24.087	50.844	4.109	1.00	34.11
ATOM	4805	C	GLU	3338	27.583	53.034	7.398	1.00	23.74
ATOM	4806	O	GLU	3338	28.500	52.294	7.737	1.00	19.53
ATOM	4807	N	TYR	3339	26.574	53.351	8.204	1.00	24.95
ATOM	4808	CA	TYR	3339	26.474	52.825	9.554	1.00	23.86
ATOM	4809	CB	TYR	3339	26.518	53.952	10.585	1.00	24.35
ATOM	4810	CG	TYR	3339	27.847	54.638	10.645	1.00	26.70
ATOM	4811	CD1	TYR	3339	28.227	55.545	9.659	1.00	27.89
ATOM	4812	CE1	TYR	3339	29.474	56.161	9.692	1.00	32.57
ATOM	4813	CD2	TYR	3339	28.747	54.359	11.674	1.00	28.26

Table 2

ATOM	4814	CE2	TYR	3339	30.002	54.965	11.721	1.00	30.08
ATOM	4815	CZ	TYR	3339	30.359	55.868	10.728	1.00	32.77
ATOM	4816	OH	TYR	3339	31.592	56.482	10.771	1.00	34.79
ATOM	4817	C	TYR	3339	25.181	52.059	9.715	1.00	23.89
ATOM	4818	O	TYR	3339	24.203	52.340	9.028	1.00	25.21
ATOM	4819	N	THR	3340	25.186	51.103	10.643	1.00	23.89
ATOM	4820	CA	THR	3340	24.028	50.265	10.916	1.00	22.98
ATOM	4821	CB	THR	3340	24.203	48.853	10.293	1.00	21.86
ATOM	4822	OG1	THR	3340	24.075	48.934	8.874	1.00	18.87
ATOM	4823	CG2	THR	3340	23.158	47.889	10.839	1.00	22.00
ATOM	4824	C	THR	3340	23.735	50.074	12.402	1.00	23.05
ATOM	4825	O	THR	3340	24.635	49.893	13.225	1.00	19.63
ATOM	4826	N	CYS	3341	22.452	50.114	12.722	1.00	25.37
ATOM	4827	CA	CYS	3341	21.991	49.893	14.076	1.00	27.60
ATOM	4828	C	CYS	3341	21.339	48.514	14.013	1.00	27.96
ATOM	4829	O	CYS	3341	20.367	48.316	13.290	1.00	28.46
ATOM	4830	CB	CYS	3341	20.951	50.938	14.484	1.00	28.73
ATOM	4831	SG	CYS	3341	20.192	50.580	16.106	1.00	35.79
ATOM	4832	N	LEU	3342	21.890	47.560	14.757	1.00	27.49
ATOM	4833	CA	LEU	3342	21.363	46.206	14.778	1.00	24.07
ATOM	4834	CB	LEU	3342	22.454	45.207	14.376	1.00	23.74
ATOM	4835	CG	LEU	3342	22.026	43.755	14.114	1.00	27.37
ATOM	4836	CD1	LEU	3342	23.123	43.028	13.334	1.00	25.92
ATOM	4837	CD2	LEU	3342	21.723	43.042	15.425	1.00	24.75
ATOM	4838	C	LEU	3342	20.827	45.860	16.159	1.00	22.92
ATOM	4839	O	LEU	3342	21.451	46.152	17.182	1.00	21.73
ATOM	4840	N	ALA	3343	19.650	45.249	16.169	1.00	21.21
ATOM	4841	CA	ALA	3343	18.997	44.826	17.393	1.00	20.79
ATOM	4842	CB	ALA	3343	17.799	45.726	17.692	1.00	21.86
ATOM	4843	C	ALA	3343	18.534	43.390	17.178	1.00	20.82
ATOM	4844	O	ALA	3343	18.058	43.039	16.088	1.00	21.13
ATOM	4845	N	GLY	3344	18.666	42.563	18.209	1.00	17.15
ATOM	4846	CA	GLY	3344	18.244	41.188	18.073	1.00	17.04
ATOM	4847	C	GLY	3344	17.772	40.569	19.365	1.00	18.04
ATOM	4848	O	GLY	3344	18.237	40.938	20.448	1.00	19.90
ATOM	4849	N	ASN	3345	16.824	39.644	19.257	1.00	16.54
ATOM	4850	CA	ASN	3345	16.337	38.950	20.429	1.00	20.08
ATOM	4851	CB	ASN	3345	14.943	39.451	20.852	1.00	23.76
ATOM	4852	CG	ASN	3345	13.883	39.209	19.807	1.00	25.69
ATOM	4853	OD1	ASN	3345	13.806	38.125	19.226	1.00	27.26
ATOM	4854	ND2	ASN	3345	13.039	40.214	19.572	1.00	24.39
ATOM	4855	C	ASN	3345	16.320	37.465	20.117	1.00	20.29
ATOM	4856	O	ASN	3345	16.736	37.047	19.039	1.00	19.27
ATOM	4857	N	SER	3346	15.838	36.666	21.060	1.00	20.72
ATOM	4858	CA	SER	3346	15.808	35.231	20.868	1.00	19.34
ATOM	4859	CB	SER	3346	15.228	34.551	22.095	1.00	20.12
ATOM	4860	OG	SER	3346	13.819	34.647	22.082	1.00	26.95
ATOM	4861	C	SER	3346	15.040	34.775	19.638	1.00	19.31
ATOM	4862	O	SER	3346	15.288	33.678	19.147	1.00	22.73
ATOM	4863	N	ILE	3347	14.109	35.585	19.141	1.00	17.32
ATOM	4864	CA	ILE	3347	13.347	35.189	17.954	1.00	17.57
ATOM	4865	CB	ILE	3347	11.964	35.906	17.878	1.00	17.04
ATOM	4866	CG2	ILE	3347	11.324	35.644	16.520	1.00	14.02
ATOM	4867	CG1	ILE	3347	11.008	35.366	18.946	1.00	15.83
ATOM	4868	CD1	ILE	3347	11.542	35.388	20.341	1.00	16.40
ATOM	4869	C	ILE	3347	14.115	35.447	16.643	1.00	17.76
ATOM	4870	O	ILE	3347	14.223	34.569	15.787	1.00	18.04
ATOM	4871	N	GLY	3348	14.645	36.650	16.493	1.00	15.82
ATOM	4872	CA	GLY	3348	15.389	36.981	15.300	1.00	17.40
ATOM	4873	C	GLY	3348	16.071	38.324	15.475	1.00	19.13
ATOM	4874	O	GLY	3348	16.068	38.890	16.561	1.00	18.77

Table 2

ATOM	4875	N	LEU	3349	16.658	38.853	14.415	1.00	20.47
ATOM	4876	CA	LEU	3349	17.314	40.130	14.552	1.00	21.34
ATOM	4877	CB	LEU	3349	18.831	39.928	14.590	1.00	22.11
ATOM	4878	CG	LEU	3349	19.598	39.437	13.373	1.00	20.52
ATOM	4879	CD1	LEU	3349	19.815	40.602	12.421	1.00	23.69
ATOM	4880	CD2	LEU	3349	20.940	38.868	13.815	1.00	19.06
ATOM	4881	C	LEU	3349	16.894	41.072	13.437	1.00	23.13
ATOM	4882	O	LEU	3349	16.408	40.628	12.406	1.00	23.32
ATOM	4883	N	SER	3350	17.061	42.376	13.657	1.00	25.95
ATOM	4884	CA	SER	3350	16.677	43.380	12.660	1.00	23.88
ATOM	4885	CB	SER	3350	15.323	43.989	13.024	1.00	22.02
ATOM	4886	OG	SER	3350	14.564	43.127	13.856	1.00	20.06
ATOM	4887	C	SER	3350	17.702	44.503	12.618	1.00	23.27
ATOM	4888	O	SER	3350	18.470	44.670	13.552	1.00	24.39
ATOM	4889	N	HIS	3351	17.708	45.273	11.538	1.00	23.70
ATOM	4890	CA	HIS	3351	18.622	46.403	11.439	1.00	25.12
ATOM	4891	CB	HIS	3351	20.066	45.935	11.248	1.00	26.03
ATOM	4892	CG	HIS	3351	20.311	45.254	9.942	1.00	28.05
ATOM	4893	CD2	HIS	3351	20.947	45.670	8.821	1.00	28.57
ATOM	4894	ND1	HIS	3351	19.876	43.973	9.683	1.00	28.17
ATOM	4895	CE1	HIS	3351	20.236	43.626	8.461	1.00	25.88
ATOM	4896	NE2	HIS	3351	20.888	44.636	7.916	1.00	27.45
ATOM	4897	C	HIS	3351	18.268	47.385	10.335	1.00	25.20
ATOM	4898	O	HIS	3351	17.614	47.038	9.355	1.00	27.97
ATOM	4899	N	HIS	3352	18.707	48.622	10.527	1.00	25.02
ATOM	4900	CA	HIS	3352	18.498	49.708	9.581	1.00	22.68
ATOM	4901	CB	HIS	3352	17.509	50.733	10.124	1.00	22.61
ATOM	4902	CG	HIS	3352	16.093	50.258	10.172	1.00	24.89
ATOM	4903	CD2	HIS	3352	15.552	49.031	9.994	1.00	25.59
ATOM	4904	ND1	HIS	3352	15.043	51.100	10.472	1.00	27.28
ATOM	4905	CE1	HIS	3352	13.916	50.411	10.481	1.00	27.37
ATOM	4906	NE2	HIS	3352	14.197	49.152	10.194	1.00	29.53
ATOM	4907	C	HIS	3352	19.856	50.369	9.435	1.00	22.26
ATOM	4908	O	HIS	3352	20.671	50.347	10.363	1.00	20.06
ATOM	4909	N	SER	3353	20.109	50.950	8.273	1.00	21.46
ATOM	4910	CA	SER	3353	21.382	51.606	8.047	1.00	22.89
ATOM	4911	CB	SER	3353	22.185	50.828	7.013	1.00	24.69
ATOM	4912	OG	SER	3353	22.276	49.466	7.388	1.00	27.42
ATOM	4913	C	SER	3353	21.180	53.035	7.580	1.00	23.21
ATOM	4914	O	SER	3353	20.061	53.441	7.281	1.00	24.15
ATOM	4915	N	ALA	3354	22.267	53.797	7.537	1.00	23.66
ATOM	4916	CA	ALA	3354	22.226	55.191	7.104	1.00	24.08
ATOM	4917	CB	ALA	3354	21.800	56.094	8.250	1.00	21.96
ATOM	4918	C	ALA	3354	23.610	55.569	6.613	1.00	23.61
ATOM	4919	O	ALA	3354	24.589	54.890	6.929	1.00	23.28
ATOM	4920	N	TRP	3355	23.688	56.634	5.816	1.00	25.31
ATOM	4921	CA	TRP	3355	24.971	57.084	5.265	1.00	28.33
ATOM	4922	CB	TRP	3355	24.919	57.091	3.733	1.00	34.37
ATOM	4923	CG	TRP	3355	26.122	56.457	3.088	1.00	41.09
ATOM	4924	CD2	TRP	3355	27.356	57.106	2.749	1.00	43.54
ATOM	4925	CE2	TRP	3355	28.230	56.113	2.244	1.00	44.52
ATOM	4926	CE3	TRP	3355	27.814	58.433	2.824	1.00	46.23
ATOM	4927	CD1	TRP	3355	26.289	55.130	2.778	1.00	42.95
ATOM	4928	NE1	TRP	3355	27.552	54.918	2.271	1.00	44.11
ATOM	4929	CZ2	TRP	3355	29.538	56.403	1.819	1.00	46.99
ATOM	4930	CZ3	TRP	3355	29.125	58.725	2.395	1.00	46.82
ATOM	4931	CH2	TRP	3355	29.966	57.710	1.903	1.00	47.21
ATOM	4932	C	TRP	3355	25.369	58.464	5.784	1.00	27.48
ATOM	4933	O	TRP	3355	24.548	59.400	5.818	1.00	24.86
ATOM	4934	N	LEU	3356	26.618	58.581	6.210	1.00	26.25
ATOM	4935	CA	LEU	3356	27.137	59.820	6.743	1.00	24.44

Table 2

ATOM	4936	CB	LEU	3356	27.968	59.567	7.987	1.00	26.37
ATOM	4937	CG	LEU	3356	28.642	60.839	8.517	1.00	26.66
ATOM	4938	CD1	LEU	3356	27.578	61.699	9.187	1.00	25.57
ATOM	4939	CD2	LEU	3356	29.746	60.490	9.505	1.00	25.10
ATOM	4940	C	LEU	3356	28.003	60.498	5.710	1.00	23.94
ATOM	4941	O	LEU	3356	29.026	59.954	5.285	1.00	20.62
ATOM	4942	N	THR	3357	27.598	61.683	5.307	1.00	26.42
ATOM	4943	CA	THR	3357	28.376	62.416	4.323	1.00	26.09
ATOM	4944	CB	THR	3357	27.459	63.010	3.267	1.00	25.60
ATOM	4945	OG1	THR	3357	26.573	61.984	2.793	1.00	30.06
ATOM	4946	CG2	THR	3357	28.265	63.514	2.110	1.00	26.38
ATOM	4947	C	THR	3357	29.198	63.499	4.993	1.00	23.29
ATOM	4948	O	THR	3357	28.696	64.243	5.836	1.00	21.43
ATOM	4949	N	VAL	3358	30.465	63.579	4.618	1.00	20.55
ATOM	4950	CA	VAL	3358	31.325	64.568	5.231	1.00	22.35
ATOM	4951	CB	VAL	3358	32.469	63.889	5.973	1.00	23.52
ATOM	4952	CG1	VAL	3358	33.132	64.901	6.887	1.00	24.27
ATOM	4953	CG2	VAL	3358	31.934	62.693	6.755	1.00	20.28
ATOM	4954	C	VAL	3358	31.880	65.595	4.248	1.00	22.21
ATOM	4955	O	VAL	3358	32.343	65.253	3.155	1.00	16.76
ATOM	4956	N	LEU	3359	31.834	66.863	4.661	1.00	24.15
ATOM	4957	CA	LEU	3359	32.276	67.973	3.822	1.00	25.25
ATOM	4958	CB	LEU	3359	31.050	68.821	3.465	1.00	21.53
ATOM	4959	CG	LEU	3359	29.968	68.004	2.752	1.00	20.11
ATOM	4960	CD1	LEU	3359	28.734	68.857	2.488	1.00	18.40
ATOM	4961	CD2	LEU	3359	30.553	67.447	1.448	1.00	16.31
ATOM	4962	C	LEU	3359	33.383	68.851	4.404	1.00	26.37
ATOM	4963	O	LEU	3359	33.406	69.014	5.644	1.00	31.30
ATOM	4964	S	SO4	4000	5.633	24.099	44.777	1.00	72.77
ATOM	4965	O1	SO4	4000	4.278	23.915	44.236	1.00	73.25
ATOM	4966	O2	SO4	4000	6.603	23.359	43.945	1.00	72.28
ATOM	4967	O3	SO4	4000	5.958	25.529	44.784	1.00	72.55
ATOM	4968	O4	SO4	4000	5.678	23.586	46.157	1.00	75.61
ATOM	4969	S	SO4	4001	10.965	21.084	46.120	1.00	83.74
ATOM	4970	O1	SO4	4001	12.014	21.413	47.103	1.00	84.81
ATOM	4971	O2	SO4	4001	11.205	19.741	45.559	1.00	83.81
ATOM	4972	O3	SO4	4001	9.641	21.112	46.776	1.00	83.46
ATOM	4973	O4	SO4	4001	11.008	22.071	45.032	1.00	84.31
ATOM	4974	S	SO4	4002	-2.986	74.153	-11.455	1.00	58.62
ATOM	4975	O1	SO4	4002	-1.886	73.544	-12.230	1.00	56.25
ATOM	4976	O2	SO4	4002	-3.387	73.255	-10.356	1.00	57.05
ATOM	4977	O3	SO4	4002	-2.542	75.460	-10.941	1.00	59.05
ATOM	4978	O4	SO4	4002	-4.157	74.370	-12.323	1.00	63.86
ATOM	4979	S	SO4	4003	0.500	75.090	-5.675	1.00	41.03
ATOM	4980	O1	SO4	4003	0.983	74.248	-6.786	1.00	39.49
ATOM	4981	O2	SO4	4003	0.212	74.253	-4.505	1.00	44.82
ATOM	4982	O3	SO4	4003	1.532	76.084	-5.344	1.00	46.05
ATOM	4983	O4	SO4	4003	-0.732	75.799	-6.055	1.00	44.94

Table 3

Table 3
FGFR2(D2-D3) Complexed with FGF2

HEADER GROWTH FACTOR/GROWTH FACTOR RECEPTOR 19-APR-00 1EV2
 TITLE CRYSTAL STRUCTURE OF FGF2 IN COMPLEX WITH THE EXTRACELLULAR
 TITLE 2 LIGAND BINDING DOMAIN OF FGF RECEPTOR 2 (FGFR2)
 COMPND MOL_ID: 1;
 COMPND 2 MOLECULE: FIBROBLAST GROWTH FACTOR 2;
 COMPND 3 CHAIN: A, B, C, D;
 COMPND 4 FRAGMENT: THE B-TREFOIL CORE OF FIBROBLAST GROWTH FACTOR 2;
 COMPND 5 SYNONYM: FGF2;
 COMPND 6 ENGINEERED: YES;
 COMPND 7 MUTATION: YES;
 COMPND 8 MOL_ID: 2;
 COMPND 9 MOLECULE: FIBROBLAST GROWTH FACTOR RECEPTOR 2;
 COMPND 10 CHAIN: E, F, G, H;
 COMPND 11 FRAGMENT: EXTRACELLULAR LIGAND BINDING DOMAIN OF FGF
 COMPND 12 RECEPTOR 2 CONSISTING OF IMMUNOGLOBULIN LIKE DOMAINS II
 COMPND 13 (D2) AND III (D3);
 COMPND 14 SYNONYM: FGFR2;
 COMPND 15 ENGINEERED: YES
 SOURCE MOL_ID: 1;
 SOURCE 2 ORGANISM_SCIENTIFIC: HOMO SAPIENS;
 SOURCE 3 ORGANISM_COMMON: HUMAN;
 SOURCE 4 EXPRESSION_SYSTEM_COMMON: BACTERIA;
 SOURCE 5 EXPRESSION_SYSTEM_VECTOR_TYPE: PLASMID;
 SOURCE 6 EXPRESSION_SYSTEM_PLASMID: PET15B;
 SOURCE 7 MOL_ID: 2;
 SOURCE 8 ORGANISM_SCIENTIFIC: HOMO SAPIENS;
 SOURCE 9 ORGANISM_COMMON: HUMAN;
 SOURCE 10 EXPRESSION_SYSTEM_COMMON: BACTERIA;
 SOURCE 11 EXPRESSION_SYSTEM_VECTOR_TYPE: PLASMID;
 SOURCE 12 EXPRESSION_SYSTEM_PLASMID: PET28A
 KEYWDS IMMUNOGLOBULIN (IG)LIKE DOMAINS BELONGING TO THE I-SET
 KEYWDS 2 SUBGROUP WITHIN IG-LIKE DOMAINS, B-TREFOIL FOLD
 EXPDTA X-RAY DIFFRACTION
 AUTHOR A.N.PLOTNIKOV,S.R.HUBBARD,J.SCHLESSINGER,M.MOHAMMADI
 REVDAT 1 31-MAY-00 1EV2 0
 JRNL AUTH A.N.PLOTNIKOV,S.R.HUBBARD,J.SCHLESSINGER,
 JRNL AUTH 2 M.MOHAMMADI
 JRNL TITL CRYSTAL STRUCTURES OF TWO FGF-FGFR COMPLEXES
 JRNL TITL 2 REVEAL THE DETERMINANTS OF LIGAND-RECEPTOR
 JRNL TITL 3 SPECIFICITY
 JRNL REF CELL (CAMBRIDGE,MASS.) V. 101 413 2000
 JRNL REFN ASTM CELLB5 US ISSN 0092-8674
 REMARK 1
 REMARK 2
 REMARK 2 RESOLUTION. 2.2 ANGSTROMS.
 REMARK 3
 REMARK 3 REFINEMENT.
 REMARK 3 PROGRAM : CNS
 REMARK 3 AUTHORS : BRUNGER,ADAMS,CLORE,DELANO,GROS,GROSSE-
 REMARK 3 : KUNSTLEVE,JIANG,KUSZEWSKI,NILGES, PANNU,
 REMARK 3 : READ,RICE,SIMONSON,WARREN

Table 3

REMARK 3
REMARK 3 REFINEMENT TARGET : ENGH & HUBER
REMARK 3
REMARK 3 DATA USED IN REFINEMENT.
REMARK 3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.20
REMARK 3 RESOLUTION RANGE LOW (ANGSTROMS) : 25.00
REMARK 3 DATA CUTOFF (SIGMA(F)) : 0.000
REMARK 3 OUTLIER CUTOFF HIGH (RMS(ABS(F))) : NULL
REMARK 3 COMPLETENESS (WORKING+TEST) (%) : 91.7
REMARK 3 NUMBER OF REFLECTIONS : 84816
REMARK 3
REMARK 3
REMARK 3 FIT TO DATA USED IN REFINEMENT.
REMARK 3 CROSS-VALIDATION METHOD : NULL
REMARK 3 FREE R VALUE TEST SET SELECTION : RANDOM
REMARK 3 R VALUE (WORKING SET) : 0.248
REMARK 3 FREE R VALUE : 0.273
REMARK 3 FREE R VALUE TEST SET SIZE (%) : NULL
REMARK 3 FREE R VALUE TEST SET COUNT : 4291
REMARK 3 ESTIMATED ERROR OF FREE R VALUE : NULL
REMARK 3
REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.
REMARK 3 TOTAL NUMBER OF BINS USED : NULL
REMARK 3 BIN RESOLUTION RANGE HIGH (A) : NULL
REMARK 3 BIN RESOLUTION RANGE LOW (A) : NULL
REMARK 3 BIN COMPLETENESS (WORKING+TEST) (%) : NULL
REMARK 3 REFLECTIONS IN BIN (WORKING SET) : NULL
REMARK 3 BIN R VALUE (WORKING SET) : NULL
REMARK 3 BIN FREE R VALUE : NULL
REMARK 3 BIN FREE R VALUE TEST SET SIZE (%) : NULL
REMARK 3 BIN FREE R VALUE TEST SET COUNT : NULL
REMARK 3 ESTIMATED ERROR OF BIN FREE R VALUE : NULL
REMARK 3
REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK 3 PROTEIN ATOMS : 9818
REMARK 3 NUCLEIC ACID ATOMS : 0
REMARK 3 HETEROGEN ATOMS : 20
REMARK 3 SOLVENT ATOMS : 263
REMARK 3
REMARK 3 B VALUES.
REMARK 3 FROM WILSON PLOT (A**2) : NULL
REMARK 3 MEAN B VALUE (OVERALL, A**2) : NULL
REMARK 3 OVERALL ANISOTROPIC B VALUE.
REMARK 3 B11 (A**2) : -14.90300
REMARK 3 B22 (A**2) : -0.98800
REMARK 3 B33 (A**2) : 15.89200
REMARK 3 B12 (A**2) : 0.00000
REMARK 3 B13 (A**2) : 0.00000
REMARK 3 B23 (A**2) : -0.65800
REMARK 3
REMARK 3 ESTIMATED COORDINATE ERROR.
REMARK 3 ESD FROM LUZZATI PLOT (A) : NULL
REMARK 3 ESD FROM SIGMAA (A) : NULL
REMARK 3 LOW RESOLUTION CUTOFF (A) : NULL
REMARK 3

Table 3

REMARK 3 CROSS-VALIDATED ESTIMATED COORDINATE ERROR.
 REMARK 3 ESD FROM C-V LUZZATI PLOT (A) : NULL
 REMARK 3 ESD FROM C-V SIGMAA (A) : NULL
 REMARK 3
 REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.
 REMARK 3 BOND LENGTHS (A) : 0.007
 REMARK 3 BOND ANGLES (DEGREES) : 1.33
 REMARK 3 DIHEDRAL ANGLES (DEGREES) : NULL
 REMARK 3 IMPROPER ANGLES (DEGREES) : 0.78
 REMARK 3
 REMARK 3 ISOTROPIC THERMAL MODEL : NULL
 REMARK 3
 REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA
 REMARK 3 MAIN-CHAIN BOND (A**2) : 0.87 ; 1.500
 REMARK 3 MAIN-CHAIN ANGLE (A**2) : 1.53 ; 2.000
 REMARK 3 SIDE-CHAIN BOND (A**2) : 1.16 ; 2.000
 REMARK 3 SIDE-CHAIN ANGLE (A**2) : 1.79 ; 2.500
 REMARK 3
 REMARK 3
 REMARK 3 BULK SOLVENT MODELING.
 REMARK 3 METHOD USED : CNS
 REMARK 3 KSOL : 0.38
 REMARK 3 BSOL : 47.84
 REMARK 3
 REMARK 3 NCS MODEL : NULL
 REMARK 3
 REMARK 3 NCS RESTRAINTS. RMS SIGMA/WEIGHT
 REMARK 3 GROUP 1 POSITIONAL (A) : NULL ; NULL
 REMARK 3 GROUP 1 B-FACTOR (A**2) : NULL ; NULL
 REMARK 3
 REMARK 3 PARAMETER FILE 1 : NULL
 REMARK 3 TOPOLOGY FILE 1 : NULL
 REMARK 3
 REMARK 3 OTHER REFINEMENT REMARKS: NULL
 REMARK 4
 REMARK 4 1EV2 COMPLIES WITH FORMAT V. 2.3, 09-JULY-1998
 REMARK 100
 REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 26-APR-2000.
 REMARK 100 THE RCSB ID CODE IS RCSB010917.
 REMARK 200
 REMARK 200 EXPERIMENTAL DETAILS
 REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION
 REMARK 200 DATE OF DATA COLLECTION : 22-SEP-1999
 REMARK 200 TEMPERATURE (KELVIN) : 110.0
 REMARK 200 PH : 7.50
 REMARK 200 NUMBER OF CRYSTALS USED : 1
 REMARK 200
 REMARK 200 SYNCHROTRON (Y/N) : Y
 REMARK 200 RADIATION SOURCE : NSLS
 REMARK 200 BEAMLINE : X4A
 REMARK 200 X-RAY GENERATOR MODEL : NULL
 REMARK 200 MONOCHROMATIC OR LAUE (M/L) : M
 REMARK 200 WAVELENGTH OR RANGE (A) : 0.9789
 REMARK 200 MONOCHROMATOR : NULL
 REMARK 200 OPTICS : NULL

Table 3

REMARK 200
REMARK 200 DETECTOR TYPE : CCD
REMARK 200 DETECTOR MANUFACTURER : SDMS
REMARK 200 INTENSITY-INTEGRATION SOFTWARE : SDMS
REMARK 200 DATA SCALING SOFTWARE : SCALEPACK
REMARK 200
REMARK 200 NUMBER OF UNIQUE REFLECTIONS : 206913
REMARK 200 RESOLUTION RANGE HIGH (A) : 2.200
REMARK 200 RESOLUTION RANGE LOW (A) : 25.000
REMARK 200 REJECTION CRITERIA (SIGMA(I)) : 0.000
REMARK 200
REMARK 200 OVERALL.
REMARK 200 COMPLETENESS FOR RANGE (%) : 96.3
REMARK 200 DATA REDUNDANCY : 2.200
REMARK 200 R MERGE (I) : 0.04200
REMARK 200 R SYM (I) : NULL
REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : 16.3000
REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.20
REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : 2.28
REMARK 200 COMPLETENESS FOR SHELL (%) : 87.8
REMARK 200 DATA REDUNDANCY IN SHELL : NULL
REMARK 200 R MERGE FOR SHELL (I) : 0.24100
REMARK 200 R SYM FOR SHELL (I) : NULL
REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL
REMARK 200
REMARK 200 DIFFRACTION PROTOCOL: SINGLE WAVELENGTH
REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL
REMARK 200 SOFTWARE USED: AMORE
REMARK 200 STARTING MODEL: NULL
REMARK 200
REMARK 200 REMARK: NULL
REMARK 280
REMARK 280 CRYSTAL
REMARK 280 SOLVENT CONTENT, VS (%): NULL
REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): NULL
REMARK 280
REMARK 280 CRYSTALLIZATION CONDITIONS: PEG 4000, ISOPROPANOL, HEPES-
REMARK 280 NAOH
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 1
REMARK 290
REMARK 290 SYMOP SYMMETRY
REMARK 290 NNNMMM OPERATOR
REMARK 290 1555 X,Y,Z
REMARK 290
REMARK 290 WHERE NNN -> OPERATOR NUMBER
REMARK 290 MMM -> TRANSLATION VECTOR
REMARK 290
REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
REMARK 290 RELATED MOLECULES.

Table 3

REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.000000
 REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.000000

REMARK 290

REMARK 290 REMARK: NULL

REMARK 300

REMARK 300 BIOMOLECULE: 1

REMARK 300 THIS ENTRY CONTAINS THE CRYSTALLOGRAPHIC ASYMMETRIC UNIT

REMARK 300 WHICH CONSISTS OF 8 CHAIN(S). SEE REMARK 350 FOR

REMARK 300 INFORMATION ON GENERATING THE BIOLOGICAL MOLECULE(S).

REMARK 350

REMARK 350 GENERATING THE BIOMOLECULE

REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN

REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE

REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS

REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND

REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.

REMARK 350

REMARK 350 BIOMOLECULE: 1

REMARK 350 APPLY THE FOLLOWING TO CHAINS: A, B, C, D, E, F, G, H

REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.000000

REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.000000

REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.000000

REMARK 465

REMARK 465 MISSING RESIDUES

REMARK 465 THE FOLLOWING RESIDUES WERE NOT LOCATED IN THE

REMARK 465 EXPERIMENT. (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 465 IDENTIFIER; SSSEQ=SEQUENCE NUMBER; I=INSERTION CODE.)

REMARK 465

REMARK 465 M RES C SSSEQI

REMARK 465 GLY A 15

REMARK 465 SER A 146

REMARK 465 GLY B 15

REMARK 465 SER B 146

REMARK 465 GLY C 15

REMARK 465 SER C 146

REMARK 465 GLY D 15

REMARK 465 SER D 146

REMARK 465 ASN E 147

REMARK 465 SER E 148

REMARK 465 ASN E 149

REMARK 465 THR E 268

REMARK 465 VAL E 269

REMARK 465 VAL E 270

REMARK 465 GLY E 271

REMARK 465 GLY E 272

REMARK 465 GLU E 295

REMARK 465 LYS E 296

REMARK 465 ASN E 297

REMARK 465 GLY E 298

REMARK 465 SER E 299

REMARK 465 LYS E 300

REMARK 465 TYR E 301

REMARK 465 GLY E 302

REMARK 465 PRO E 303

Table 3

REMARK 465	ASP E	304
REMARK 465	GLY E	305
REMARK 465	LEU E	306
REMARK 465	PRO E	361
REMARK 465	ALA E	362
REMARK 465	PRO E	363
REMARK 465	GLY E	364
REMARK 465	ARG E	365
REMARK 465	GLU E	366
REMARK 465	ASN F	147
REMARK 465	SER F	148
REMARK 465	ASN F	149
REMARK 465	GLY F	272
REMARK 465	VAL F	294
REMARK 465	GLU F	295
REMARK 465	LYS F	296
REMARK 465	ASN F	297
REMARK 465	GLY F	298
REMARK 465	SER F	299
REMARK 465	LYS F	300
REMARK 465	TYR F	301
REMARK 465	GLY F	302
REMARK 465	PRO F	303
REMARK 465	ASP F	304
REMARK 465	GLY F	305
REMARK 465	LEU F	306
REMARK 465	PRO F	307
REMARK 465	LEU F	360
REMARK 465	PRO F	361
REMARK 465	ALA F	362
REMARK 465	PRO F	363
REMARK 465	GLY F	364
REMARK 465	ARG F	365
REMARK 465	GLU F	366
REMARK 465	ASN G	147
REMARK 465	SER G	148
REMARK 465	ASN G	149
REMARK 465	ASN G	150
REMARK 465	GLU G	295
REMARK 465	LYS G	296
REMARK 465	ASN G	297
REMARK 465	GLY G	298
REMARK 465	SER G	299
REMARK 465	LYS G	300
REMARK 465	TYR G	301
REMARK 465	GLY G	302
REMARK 465	PRO G	303
REMARK 465	ASP G	304
REMARK 465	GLY G	305
REMARK 465	LEU G	306
REMARK 465	PRO G	307
REMARK 465	GLY G	364
REMARK 465	ARG G	365
REMARK 465	GLU G	366
REMARK 465	ASN H	147

Table 3

REMARK 465 SER H 148
 REMARK 465 ASN H 149
 REMARK 465 ASN H 150
 REMARK 465 GLU H 295
 REMARK 465 LYS H 296
 REMARK 465 ASN H 297
 REMARK 465 GLY H 298
 REMARK 465 SER H 299
 REMARK 465 LYS H 300
 REMARK 465 TYR H 301
 REMARK 465 GLY H 302
 REMARK 465 PRO H 303
 REMARK 465 ASP H 304
 REMARK 465 GLY H 305
 REMARK 465 LEU H 306
 REMARK 465 GLY H 364
 REMARK 465 ARG H 365
 REMARK 465 GLU H 366
 REMARK 470
 REMARK 470 MISSING ATOM
 REMARK 470 THE FOLLOWING RESIDUES HAVE MISSING ATOMS(M=MODEL NUMBER;
 REMARK 470 RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;
 REMARK 470 I=INSERTION CODE):
 REMARK 470 M RES CSSEQI ATOMS
 REMARK 470 HIS A 16 CG ND1 CD2 CE1 NE2
 REMARK 470 ARG A 39 CG CD NE CZ NH1 NH2
 REMARK 470 GLU A 45 CG CD OE1 OE2
 REMARK 470 LYS A 46 CG CD CE NZ
 REMARK 470 SER A 47 OG
 REMARK 470 ARG A 72 CG CD NE CZ NH1 NH2
 REMARK 470 LYS A 77 CG CD CE NZ
 REMARK 470 GLU A 78 CG CD OE1 OE2
 REMARK 470 ARG A 81 CG CD NE CZ NH1 NH2
 REMARK 470 LYS A 86 CG CD CE NZ
 REMARK 470 GLU A 91 CG CD OE1 OE2
 REMARK 470 LYS A 110 CG CD CE NZ
 REMARK 470 TRP A 114 CG CD1 CD2 NE1 CE2 CE3 CZ2
 REMARK 470 TRP A 114 CZ3 CH2
 REMARK 470 LYS A 119 CG CD CE NZ
 REMARK 470 ARG A 120 CG CD NE CZ NH1 NH2
 REMARK 470 LEU A 126 CG CD1 CD2
 REMARK 470 LYS A 129 CG CD CE NZ
 REMARK 470 LYS A 145 CG CD CE NZ
 REMARK 470 HIS B 16 CG ND1 CD2 CE1 NE2
 REMARK 470 LYS B 46 CG CD CE NZ
 REMARK 470 HIS B 50 CG ND1 CD2 CE1 NE2
 REMARK 470 LYS B 52 CG CD CE NZ
 REMARK 470 LYS B 77 CG CD CE NZ
 REMARK 470 GLU B 78 CG CD OE1 OE2
 REMARK 470 ARG B 81 CG CD NE CZ NH1 NH2
 REMARK 470 LYS B 86 CG CD CE NZ
 REMARK 470 GLU B 91 CG CD OE1 OE2
 REMARK 470 LYS B 110 CG CD CE NZ
 REMARK 470 TYR B 111 CG CD1 CD2 CE1 CE2 CZ OH
 REMARK 470 TRP B 114 CG CD1 CD2 NE1 CE2 CE3 CZ2

REMARK 470	TRP B 114	CZ3	CH2						
REMARK 470	LYS B 119	CG	CD	CE	NZ				
REMARK 470	ARG B 120	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	GLN B 123	CG	CD	OE1	NE2				
REMARK 470	LEU B 126	CG	CD1	CD2					
REMARK 470	LYS B 145	CG	CD	CE	NZ				
REMARK 470	HIS C 16	CG	ND1	CD2	CE1	NE2			
REMARK 470	HIS C 35	CG	ND1	CD2	CE1	NE2			
REMARK 470	ARG C 39	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	GLU C 45	CG	CD	OE1	OE2				
REMARK 470	LYS C 46	CG	CD	CE	NZ				
REMARK 470	SER C 69	OG							
REMARK 470	GLU C 78	CG	CD	OE1	OE2				
REMARK 470	ARG C 81	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	LYS C 86	CG	CD	CE	NZ				
REMARK 470	ASN C 101	CG	OD1	ND2					
REMARK 470	ARG C 120	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	LYS C 129	CG	CD	CE	NZ				
REMARK 470	LYS C 145	CG	CD	CE	NZ				
REMARK 470	HIS D 16	CG	ND1	CD2	CE1	NE2			
REMARK 470	HIS D 35	CG	ND1	CD2	CE1	NE2			
REMARK 470	GLU D 45	CG	CD	OE1	OE2				
REMARK 470	LYS D 46	CG	CD	CE	NZ				
REMARK 470	ASP D 48	CG	OD1	OD2					
REMARK 470	SER D 69	OG							
REMARK 470	GLU D 78	CG	CD	OE1	OE2				
REMARK 470	ARG D 81	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	LYS D 86	CG	CD	CE	NZ				
REMARK 470	SER D 87	OG							
REMARK 470	LYS D 119	CG	CD	CE	NZ				
REMARK 470	ARG D 120	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	LYS D 129	CG	CD	CE	NZ				
REMARK 470	LYS D 145	CG	CD	CE	NZ				
REMARK 470	ASN E 150	CG	OD1	ND2					
REMARK 470	LYS E 151	CG	CD	CE	NZ				
REMARK 470	GLU E 160	CG	CD	OE1	OE2				
REMARK 470	LYS E 161	CG	CD	CE	NZ				
REMARK 470	GLU E 163	CG	CD	OE1	OE2				
REMARK 470	ASN E 184	CG	OD1	ND2					
REMARK 470	ARG E 210	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	ASN E 211	CG	OD1	ND2					
REMARK 470	GLN E 212	CG	CD	OE1	NE2				
REMARK 470	HIS E 213	CG	ND1	CD2	CE1	NE2			
REMARK 470	GLU E 234	CG	CD	OE1	OE2				
REMARK 470	SER E 267	OG							
REMARK 470	TYR E 281	CG	CD1	CD2	CE1	CE2	CZ	OH	
REMARK 470	LYS E 292	CG	CD	CE	NZ				
REMARK 470	HIS E 293	CG	ND1	CD2	CE1	NE2			
REMARK 470	VAL E 294	CG1	CG2						
REMARK 470	TYR E 308	CG	CD1	CD2	CE1	CE2	CZ	OH	
REMARK 470	LYS E 310	CG	CD	CE	NZ				
REMARK 470	LYS E 322	CG	CD	CE	NZ				
REMARK 470	GLU E 323	CG	CD	OE1	OE2				
REMARK 470	ARG E 330	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	ASN E 331	CG	OD1	ND2					

Table 3

REMARK 470	VAL E 332	CG1	CG2						
REMARK 470	THR E 333	OG1	CG2						
REMARK 470	PHE E 334	CG	CD1	CD2	CE1	CE2	CZ		
REMARK 470	GLU E 335	CG	CD	OE1	OE2				
REMARK 470	VAL E 359	CG1	CG2						
REMARK 470	LEU E 360	CG	CD1	CD2					
REMARK 470	ASN F 150	CG	OD1	ND2					
REMARK 470	LYS F 151	CG	CD	CE	NZ				
REMARK 470	GLU F 160	CG	CD	OE1	OE2				
REMARK 470	LYS F 161	CG	CD	CE	NZ				
REMARK 470	GLU F 163	CG	CD	OE1	OE2				
REMARK 470	ASN F 184	CG	OD1	ND2					
REMARK 470	ARG F 210	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	GLN F 212	CG	CD	OE1	NE2				
REMARK 470	HIS F 213	CG	ND1	CD2	CE1	NE2			
REMARK 470	GLU F 234	CG	CD	OE1	OE2				
REMARK 470	GLU F 236	CG	CD	OE1	OE2				
REMARK 470	SER F 267	OG							
REMARK 470	VAL F 269	CG1	CG2						
REMARK 470	VAL F 270	CG1	CG2						
REMARK 470	HIS F 293	CG	ND1	CD2	CE1	NE2			
REMARK 470	TYR F 308	CG	CD1	CD2	CE1	CE2	CZ	OH	
REMARK 470	LYS F 310	CG	CD	CE	NZ				
REMARK 470	LYS F 322	CG	CD	CE	NZ				
REMARK 470	GLU F 323	CG	CD	OE1	OE2				
REMARK 470	TYR F 328	CG	CD1	CD2	CE1	CE2	CZ	OH	
REMARK 470	ILE F 329	CG1	CG2	CD1					
REMARK 470	ARG F 330	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	ASN F 331	CG	OD1	ND2					
REMARK 470	VAL F 332	CG1	CG2						
REMARK 470	THR F 333	OG1	CG2						
REMARK 470	PHE F 334	CG	CD1	CD2	CE1	CE2	CZ		
REMARK 470	GLU F 335	CG	CD	OE1	OE2				
REMARK 470	TRP F 356	CG	CD1	CD2	NE1	CE2	CE3	CZ2	
REMARK 470	TRP F 356	CZ3	CH2						
REMARK 470	THR F 358	OG1	CG2						
REMARK 470	VAL F 359	CG1	CG2						
REMARK 470	LYS G 151	CG	CD	CE	NZ				
REMARK 470	GLU G 160	CG	CD	OE1	OE2				
REMARK 470	ARG G 165	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	LYS G 176	CG	CD	CE	NZ				
REMARK 470	LYS G 196	CG	CD	CE	NZ				
REMARK 470	ARG G 203	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	ARG G 210	CG	CD	NE	CZ	NH1	NH2		
REMARK 470	GLN G 212	CG	CD	OE1	NE2				
REMARK 470	HIS G 213	CG	ND1	CD2	CE1	NE2			
REMARK 470	LYS G 226	CG	CD	CE	NZ				
REMARK 470	GLU G 236	CG	CD	OE1	OE2				
REMARK 470	ASP G 273	CG	OD1	OD2					
REMARK 470	TYR G 308	CG	CD1	CD2	CE1	CE2	CZ	OH	
REMARK 470	LYS G 310	CG	CD	CE	NZ				
REMARK 470	LYS G 322	CG	CD	CE	NZ				
REMARK 470	GLU G 323	CG	CD	OE1	OE2				
REMARK 470	GLU G 335	CG	CD	OE1	OE2				
REMARK 470	LYS H 151	CG	CD	CE	NZ				

Table 3

REMARK 470 GLU H 160 CG CD OE1 OE2
 REMARK 470 LYS H 161 CG CD CE NZ
 REMARK 470 ARG H 165 CG CD NE CZ NH1 NH2
 REMARK 470 LYS H 176 CG CD CE NZ
 REMARK 470 LYS H 196 CG CD CE NZ
 REMARK 470 GLU H 197 CG CD OE1 OE2
 REMARK 470 LYS H 199 CG CD CE NZ
 REMARK 470 ARG H 210 CG CD NE CZ NH1 NH2
 REMARK 470 ASN H 211 CG OD1 ND2
 REMARK 470 GLN H 212 CG CD OE1 NE2
 REMARK 470 GLU H 236 CG CD OE1 OE2
 REMARK 470 HIS H 245 CG ND1 CD2 CE1 NE2
 REMARK 470 VAL H 269 CG1 CG2
 REMARK 470 HIS H 293 CG ND1 CD2 CE1 NE2
 REMARK 470 TYR H 308 CG CD1 CD2 CE1 CE2 CZ OH
 REMARK 470 LYS H 310 CG CD CE NZ
 REMARK 470 ASN H 318 CG OD1 ND2
 REMARK 470 LYS H 322 CG CD CE NZ
 REMARK 470 GLU H 323 CG CD OE1 OE2
 REMARK 470 PHE H 334 CG CD1 CD2 CE1 CE2 CZ
 REMARK 470 GLU H 335 CG CD OE1 OE2
 REMARK 470 VAL H 359 CG1 CG2

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND LENGTHS

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
 REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
 REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
 REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

REMARK 500 FORMAT: (10X,I3,I1X,2(A3,I1X,A1,I4,A1,I1X,A4,3X),F6.3)

REMARK 500

REMARK 500 EXPECTED VALUES: ENGH AND HUBER, 1991

REMARK 500

REMARK 500	M	RES	CSSEQI	ATM1	RES	CSSEQI	ATM2	DEVIATION
REMARK 500	MET	A	76	CE	MET	A	76	SD 0.046
REMARK 500	MET	E	162	SD	MET	E	162	CG 0.047
REMARK 500	MET	E	189	CE	MET	E	189	SD 0.050
REMARK 500	MET	F	218	CE	MET	F	218	SD -0.073
REMARK 500	PRO	F	286	CD	PRO	F	286	CG 0.048
REMARK 500	PRO	G	361	CG	PRO	G	361	CB 0.061
REMARK 500	PRO	G	363	CG	PRO	G	363	CB 0.051
REMARK 500	PRO	H	363	CG	PRO	H	363	CB 0.048

REMARK 500 MET A 76 CE MET A 76 SD 0.046

REMARK 500 MET E 162 SD MET E 162 CG 0.047

REMARK 500 MET E 189 CE MET E 189 SD 0.050

REMARK 500 MET F 218 CE MET F 218 SD -0.073

REMARK 500 PRO F 286 CD PRO F 286 CG 0.048

REMARK 500 PRO G 361 CG PRO G 361 CB 0.061

REMARK 500 PRO G 363 CG PRO G 363 CB 0.051

REMARK 500 PRO H 363 CG PRO H 363 CB 0.048

REMARK 500

REMARK 500 GEOMETRY AND STEREOCHEMISTRY

REMARK 500 SUBTOPIC: COVALENT BOND ANGLES

REMARK 500

REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
 REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
 REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
 REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).

REMARK 500

REMARK 500 STANDARD TABLE:

Table 3

REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)

REMARK 500

REMARK 500 EXPECTED VALUES: ENGH AND HUBER, 1991

REMARK 500

REMARK 500 M RES CSSEQI ATM1 ATM2 ATM3

REMARK 500 ARG A 22 N - CA - C ANGL. DEV. = -10.0 DEGREES

REMARK 500 SER A 64 N - CA - C ANGL. DEV. = -9.7 DEGREES

REMARK 500 THR A 112 N - CA - C ANGL. DEV. = 10.5 DEGREES

REMARK 500 VAL A 116 N - CA - C ANGL. DEV. = -10.5 DEGREES

REMARK 500 ARG B 22 N - CA - C ANGL. DEV. = -10.2 DEGREES

REMARK 500 SER B 64 N - CA - C ANGL. DEV. = -9.9 DEGREES

REMARK 500 THR B 112 N - CA - C ANGL. DEV. = 10.8 DEGREES

REMARK 500 VAL B 116 N - CA - C ANGL. DEV. = -10.1 DEGREES

REMARK 500 ARG C 22 N - CA - C ANGL. DEV. = -9.5 DEGREES

REMARK 500 SER C 64 N - CA - C ANGL. DEV. = -9.0 DEGREES

REMARK 500 THR C 112 N - CA - C ANGL. DEV. = 10.7 DEGREES

REMARK 500 VAL C 116 N - CA - C ANGL. DEV. = -9.8 DEGREES

REMARK 500 ARG D 22 N - CA - C ANGL. DEV. = -9.6 DEGREES

REMARK 500 SER D 64 N - CA - C ANGL. DEV. = -9.2 DEGREES

REMARK 500 THR D 112 N - CA - C ANGL. DEV. = 10.6 DEGREES

REMARK 500 VAL D 116 N - CA - C ANGL. DEV. = -10.1 DEGREES

REMARK 500 GLU E 234 N - CA - C ANGL. DEV. = 8.0 DEGREES

REMARK 500 CYS E 342 N - CA - C ANGL. DEV. = -8.2 DEGREES

REMARK 500 GLU F 234 N - CA - C ANGL. DEV. = 8.2 DEGREES

REMARK 500 LEU F 258 CA - CB - CG ANGL. DEV. = 8.1 DEGREES

REMARK 500 CYS F 342 N - CA - C ANGL. DEV. = -8.5 DEGREES

REMARK 500 GLU G 234 N - CA - C ANGL. DEV. = 8.6 DEGREES

REMARK 500 ALA G 362 N - CA - C ANGL. DEV. = 13.7 DEGREES

REMARK 500 PRO G 363 C - N - CA ANGL. DEV. = -10.5 DEGREES

REMARK 500 GLU H 234 N - CA - C ANGL. DEV. = 8.6 DEGREES

REMARK 900

REMARK 900 RELATED ENTRIES

REMARK 900 RELATED ID: 1CVS RELATED DB: PDB

REMARK 900 CRYSTAL STRUCTURE OF FGF2 IN COMPLEX WITH THE EXTRACELLULAR

REMARK 900 LIGAND BINDING DOMAIN OF FGF RECEPTOR 1 (FGFR1)

REMARK 900 RELATED ID: 1EVT RELATED DB: PDB

REMARK 900 FGF1-FGFR1 COMPLEX

DBREF 1EV2 A 15 146 SWS P09038 FGF2_HUMAN 24 155

DBREF 1EV2 B 15 146 SWS P09038 FGF2_HUMAN 24 155

DBREF 1EV2 C 15 146 SWS P09038 FGF2_HUMAN 24 155

DBREF 1EV2 D 15 146 SWS P09038 FGF2_HUMAN 24 155

DBREF 1EV2 E 147 366 SWS P21802 FGR2_HUMAN 147 366

DBREF 1EV2 F 147 366 SWS P21802 FGR2_HUMAN 147 366

DBREF 1EV2 G 147 366 SWS P21802 FGR2_HUMAN 147 366

DBREF 1EV2 H 147 366 SWS P21802 FGR2_HUMAN 147 366

SEQADV 1EV2 SER A 69 SWS P09038 CYS 78 ENGINEERED

SEQADV 1EV2 SER A 87 SWS P09038 CYS 96 ENGINEERED

SEQADV 1EV2 SER B 69 SWS P09038 CYS 78 ENGINEERED

SEQADV 1EV2 SER B 87 SWS P09038 CYS 96 ENGINEERED

SEQADV 1EV2 SER C 69 SWS P09038 CYS 78 ENGINEERED

SEQADV 1EV2 SER C 87 SWS P09038 CYS 96 ENGINEERED

SEQADV 1EV2 SER D 69 SWS P09038 CYS 78 ENGINEERED

SEQADV 1EV2 SER D 87 SWS P09038 CYS 96 ENGINEERED

SEQRES 1 A 132 GLY HIS PHE LYS ASP PRO LYS ARG LEU TYR CYS LYS ASN

SEQRES 2 A 132 GLY GLY PHE PHE LEU ARG ILE HIS PRO ASP GLY ARG VAL

Table 3

SEQRES 3 A 132 ASP GLY VAL ARG GLU LYS SER ASP PRO HIS ILE LYS LEU
 SEQRES 4 A 132 GLN LEU GLN ALA GLU GLU ARG GLY VAL VAL SER ILE LYS
 SEQRES 5 A 132 GLY VAL SER ALA ASN ARG TYR LEU ALA MET LYS GLU ASP
 SEQRES 6 A 132 GLY ARG LEU LEU ALA SER LYS SER VAL THR ASP GLU CYS
 SEQRES 7 A 132 PHE PHE PHE GLU ARG LEU GLU SER ASN ASN TYR ASN THR
 SEQRES 8 A 132 TYR ARG SER ARG LYS TYR THR SER TRP TYR VAL ALA LEU
 SEQRES 9 A 132 LYS ARG THR GLY GLN TYR LYS LEU GLY SER LYS THR GLY
 SEQRES 10 A 132 PRO GLY GLN LYS ALA ILE LEU PHE LEU PRO MET SER ALA
 SEQRES 11 A 132 LYS SER
 SEQRES 1 B 132 GLY HIS PHE LYS ASP PRO LYS ARG LEU TYR CYS LYS ASN
 SEQRES 2 B 132 GLY GLY PHE PHE LEU ARG ILE HIS PRO ASP GLY ARG VAL
 SEQRES 3 B 132 ASP GLY VAL ARG GLU LYS SER ASP PRO HIS ILE LYS LEU
 SEQRES 4 B 132 GLN LEU GLN ALA GLU GLU ARG GLY VAL VAL SER ILE LYS
 SEQRES 5 B 132 GLY VAL SER ALA ASN ARG TYR LEU ALA MET LYS GLU ASP
 SEQRES 6 B 132 GLY ARG LEU LEU ALA SER LYS SER VAL THR ASP GLU CYS
 SEQRES 7 B 132 PHE PHE PHE GLU ARG LEU GLU SER ASN ASN TYR ASN THR
 SEQRES 8 B 132 TYR ARG SER ARG LYS TYR THR SER TRP TYR VAL ALA LEU
 SEQRES 9 B 132 LYS ARG THR GLY GLN TYR LYS LEU GLY SER LYS THR GLY
 SEQRES 10 B 132 PRO GLY GLN LYS ALA ILE LEU PHE LEU PRO MET SER ALA
 SEQRES 11 B 132 LYS SER
 SEQRES 1 C 132 GLY HIS PHE LYS ASP PRO LYS ARG LEU TYR CYS LYS ASN
 SEQRES 2 C 132 GLY GLY PHE PHE LEU ARG ILE HIS PRO ASP GLY ARG VAL
 SEQRES 3 C 132 ASP GLY VAL ARG GLU LYS SER ASP PRO HIS ILE LYS LEU
 SEQRES 4 C 132 GLN LEU GLN ALA GLU GLU ARG GLY VAL VAL SER ILE LYS
 SEQRES 5 C 132 GLY VAL SER ALA ASN ARG TYR LEU ALA MET LYS GLU ASP
 SEQRES 6 C 132 GLY ARG LEU LEU ALA SER LYS SER VAL THR ASP GLU CYS
 SEQRES 7 C 132 PHE PHE PHE GLU ARG LEU GLU SER ASN ASN TYR ASN THR
 SEQRES 8 C 132 TYR ARG SER ARG LYS TYR THR SER TRP TYR VAL ALA LEU
 SEQRES 9 C 132 LYS ARG THR GLY GLN TYR LYS LEU GLY SER LYS THR GLY
 SEQRES 10 C 132 PRO GLY GLN LYS ALA ILE LEU PHE LEU PRO MET SER ALA
 SEQRES 11 C 132 LYS SER
 SEQRES 1 D 132 GLY HIS PHE LYS ASP PRO LYS ARG LEU TYR CYS LYS ASN
 SEQRES 2 D 132 GLY GLY PHE PHE LEU ARG ILE HIS PRO ASP GLY ARG VAL
 SEQRES 3 D 132 ASP GLY VAL ARG GLU LYS SER ASP PRO HIS ILE LYS LEU
 SEQRES 4 D 132 GLN LEU GLN ALA GLU GLU ARG GLY VAL VAL SER ILE LYS
 SEQRES 5 D 132 GLY VAL SER ALA ASN ARG TYR LEU ALA MET LYS GLU ASP
 SEQRES 6 D 132 GLY ARG LEU LEU ALA SER LYS SER VAL THR ASP GLU CYS
 SEQRES 7 D 132 PHE PHE PHE GLU ARG LEU GLU SER ASN ASN TYR ASN THR
 SEQRES 8 D 132 TYR ARG SER ARG LYS TYR THR SER TRP TYR VAL ALA LEU
 SEQRES 9 D 132 LYS ARG THR GLY GLN TYR LYS LEU GLY SER LYS THR GLY
 SEQRES 10 D 132 PRO GLY GLN LYS ALA ILE LEU PHE LEU PRO MET SER ALA
 SEQRES 11 D 132 LYS SER
 SEQRES 1 E 220 ASN SER ASN ASN LYS ARG ALA PRO TYR TRP THR ASN THR
 SEQRES 2 E 220 GLU LYS MET GLU LYS ARG LEU HIS ALA VAL PRO ALA ALA
 SEQRES 3 E 220 ASN THR VAL LYS PHE ARG CYS PRO ALA GLY GLY ASN PRO
 SEQRES 4 E 220 MET PRO THR MET ARG TRP LEU LYS ASN GLY LYS GLU PHE
 SEQRES 5 E 220 LYS GLN GLU HIS ARG ILE GLY GLY TYR LYS VAL ARG ASN
 SEQRES 6 E 220 GLN HIS TRP SER LEU ILE MET GLU SER VAL VAL PRO SER
 SEQRES 7 E 220 ASP LYS GLY ASN TYR THR CYS VAL VAL GLU ASN GLU TYR
 SEQRES 8 E 220 GLY SER ILE ASN HIS THR TYR HIS LEU ASP VAL VAL GLU
 SEQRES 9 E 220 ARG SER PRO HIS ARG PRO ILE LEU GLN ALA GLY LEU PRO
 SEQRES 10 E 220 ALA ASN ALA SER THR VAL VAL GLY GLY ASP VAL GLU PHE
 SEQRES 11 E 220 VAL CYS LYS VAL TYR SER ASP ALA GLN PRO HIS ILE GLN
 SEQRES 12 E 220 TRP ILE LYS HIS VAL GLU LYS ASN GLY SER LYS TYR GLY
 SEQRES 13 E 220 PRO ASP GLY LEU PRO TYR LEU LYS VAL LEU LYS ALA ALA

Table 3

SEQRES 14 E 220 GLY VAL ASN THR THR ASP LYS GLU ILE GLU VAL LEU TYR
 SEQRES 15 E 220 ILE ARG ASN VAL THR PHE GLU ASP ALA GLY GLU TYR THR
 SEQRES 16 E 220 CYS LEU ALA GLY ASN SER ILE GLY ILE SER PHE HIS SER
 SEQRES 17 E 220 ALA TRP LEU THR VAL LEU PRO ALA PRO GLY ARG GLU
 SEQRES 1 F 220 ASN SER ASN ASN LYS ARG ALA PRO TYR TRP THR ASN THR
 SEQRES 2 F 220 GLU LYS MET GLU LYS ARG LEU HIS ALA VAL PRO ALA ALA
 SEQRES 3 F 220 ASN THR VAL LYS PHE ARG CYS PRO ALA GLY GLY ASN PRO
 SEQRES 4 F 220 MET PRO THR MET ARG TRP LEU LYS ASN GLY LYS GLU PHE
 SEQRES 5 F 220 LYS GLN GLU HIS ARG ILE GLY GLY TYR LYS VAL ARG ASN
 SEQRES 6 F 220 GLN HIS TRP SER LEU ILE MET GLU SER VAL VAL PRO SER
 SEQRES 7 F 220 ASP LYS GLY ASN TYR THR CYS VAL VAL GLU ASN GLU TYR
 SEQRES 8 F 220 GLY SER ILE ASN HIS THR TYR HIS LEU ASP VAL VAL GLU
 SEQRES 9 F 220 ARG SER PRO HIS ARG PRO ILE LEU GLN ALA GLY LEU PRO
 SEQRES 10 F 220 ALA ASN ALA SER THR VAL VAL GLY GLY ASP VAL GLU PHE
 SEQRES 11 F 220 VAL CYS LYS VAL TYR SER ASP ALA GLN PRO HIS ILE GLN
 SEQRES 12 F 220 TRP ILE LYS HIS VAL GLU LYS ASN GLY SER LYS TYR GLY
 SEQRES 13 F 220 PRO ASP GLY LEU PRO TYR LEU LYS VAL LEU LYS ALA ALA
 SEQRES 14 F 220 GLY VAL ASN THR THR ASP LYS GLU ILE GLU VAL LEU TYR
 SEQRES 15 F 220 ILE ARG ASN VAL THR PHE GLU ASP ALA GLY GLU TYR THR
 SEQRES 16 F 220 CYS LEU ALA GLY ASN SER ILE GLY ILE SER PHE HIS SER
 SEQRES 17 F 220 ALA TRP LEU THR VAL LEU PRO ALA PRO GLY ARG GLU
 SEQRES 1 G 220 ASN SER ASN ASN LYS ARG ALA PRO TYR TRP THR ASN THR
 SEQRES 2 G 220 GLU LYS MET GLU LYS ARG LEU HIS ALA VAL PRO ALA ALA
 SEQRES 3 G 220 ASN THR VAL LYS PHE ARG CYS PRO ALA GLY GLY ASN PRO
 SEQRES 4 G 220 MET PRO THR MET ARG TRP LEU LYS ASN GLY LYS GLU PHE
 SEQRES 5 G 220 LYS GLN GLU HIS ARG ILE GLY GLY TYR LYS VAL ARG ASN
 SEQRES 6 G 220 GLN HIS TRP SER LEU ILE MET GLU SER VAL VAL PRO SER
 SEQRES 7 G 220 ASP LYS GLY ASN TYR THR CYS VAL VAL GLU ASN GLU TYR
 SEQRES 8 G 220 GLY SER ILE ASN HIS THR TYR HIS LEU ASP VAL VAL GLU
 SEQRES 9 G 220 ARG SER PRO HIS ARG PRO ILE LEU GLN ALA GLY LEU PRO
 SEQRES 10 G 220 ALA ASN ALA SER THR VAL VAL GLY GLY ASP VAL GLU PHE
 SEQRES 11 G 220 VAL CYS LYS VAL TYR SER ASP ALA GLN PRO HIS ILE GLN
 SEQRES 12 G 220 TRP ILE LYS HIS VAL GLU LYS ASN GLY SER LYS TYR GLY
 SEQRES 13 G 220 PRO ASP GLY LEU PRO TYR LEU LYS VAL LEU LYS ALA ALA
 SEQRES 14 G 220 GLY VAL ASN THR THR ASP LYS GLU ILE GLU VAL LEU TYR
 SEQRES 15 G 220 ILE ARG ASN VAL THR PHE GLU ASP ALA GLY GLU TYR THR
 SEQRES 16 G 220 CYS LEU ALA GLY ASN SER ILE GLY ILE SER PHE HIS SER
 SEQRES 17 G 220 ALA TRP LEU THR VAL LEU PRO ALA PRO GLY ARG GLU
 SEQRES 1 H 220 ASN SER ASN ASN LYS ARG ALA PRO TYR TRP THR ASN THR
 SEQRES 2 H 220 GLU LYS MET GLU LYS ARG LEU HIS ALA VAL PRO ALA ALA
 SEQRES 3 H 220 ASN THR VAL LYS PHE ARG CYS PRO ALA GLY GLY ASN PRO
 SEQRES 4 H 220 MET PRO THR MET ARG TRP LEU LYS ASN GLY LYS GLU PHE
 SEQRES 5 H 220 LYS GLN GLU HIS ARG ILE GLY GLY TYR LYS VAL ARG ASN
 SEQRES 6 H 220 GLN HIS TRP SER LEU ILE MET GLU SER VAL VAL PRO SER
 SEQRES 7 H 220 ASP LYS GLY ASN TYR THR CYS VAL VAL GLU ASN GLU TYR
 SEQRES 8 H 220 GLY SER ILE ASN HIS THR TYR HIS LEU ASP VAL VAL GLU
 SEQRES 9 H 220 ARG SER PRO HIS ARG PRO ILE LEU GLN ALA GLY LEU PRO
 SEQRES 10 H 220 ALA ASN ALA SER THR VAL VAL GLY GLY ASP VAL GLU PHE
 SEQRES 11 H 220 VAL CYS LYS VAL TYR SER ASP ALA GLN PRO HIS ILE GLN
 SEQRES 12 H 220 TRP ILE LYS HIS VAL GLU LYS ASN GLY SER LYS TYR GLY
 SEQRES 13 H 220 PRO ASP GLY LEU PRO TYR LEU LYS VAL LEU LYS ALA ALA
 SEQRES 14 H 220 GLY VAL ASN THR THR ASP LYS GLU ILE GLU VAL LEU TYR
 SEQRES 15 H 220 ILE ARG ASN VAL THR PHE GLU ASP ALA GLY GLU TYR THR
 SEQRES 16 H 220 CYS LEU ALA GLY ASN SER ILE GLY ILE SER PHE HIS SER
 SEQRES 17 H 220 ALA TRP LEU THR VAL LEU PRO ALA PRO GLY ARG GLU

Table 3

HET SO4 9001 5
 HET SO4 9002 5
 HET SO4 9003 5
 HET SO4 9004 5
 HETNAM SO4 SULFATE ION
 FORMUL 9 SO4 4(O4 S1 2-)
 FORMUL 13 HOH *263(H2 O1)
 HELIX 1 1 LEU A 126 THR A 130 5 5
 HELIX 2 2 LEU B 126 THR B 130 5 5
 HELIX 3 3 LEU C 126 THR C 130 5 5
 HELIX 4 4 LEU D 126 THR D 130 5 5
 HELIX 5 5 ASN E 158 GLU E 163 5 6
 HELIX 6 6 LYS E 199 ARG E 203 5 5
 HELIX 7 7 ASN E 211 HIS E 213 5 3
 HELIX 8 8 VAL E 222 LYS E 226 5 5
 HELIX 9 9 THR E 333 ALA E 337 5 5
 HELIX 10 10 ASN F 158 GLU F 163 5 6
 HELIX 11 11 LYS F 199 ARG F 203 5 5
 HELIX 12 12 ASN F 211 HIS F 213 5 3
 HELIX 13 13 VAL F 222 LYS F 226 5 5
 HELIX 14 14 THR F 333 ALA F 337 5 5
 HELIX 15 15 ASN G 158 GLU G 163 5 6
 HELIX 16 16 LYS G 199 ARG G 203 5 5
 HELIX 17 17 ASN G 211 HIS G 213 5 3
 HELIX 18 18 VAL G 222 LYS G 226 5 5
 HELIX 19 19 THR G 333 ALA G 337 5 5
 HELIX 20 20 ASN H 158 GLU H 163 5 6
 HELIX 21 21 LYS H 199 ARG H 203 5 5
 HELIX 22 22 ASN H 211 HIS H 213 5 3
 HELIX 23 23 VAL H 222 LYS H 226 5 5
 HELIX 24 24 THR H 333 ALA H 337 5 5
 SHEET 1 A 4 VAL A 40 VAL A 43 0
 SHEET 2 A 4 PHE A 30 ILE A 34 -1 N PHE A 31 O VAL A 43
 SHEET 3 A 4 LYS A 21 CYS A 25 -1 O LEU A 23 N LEU A 32
 SHEET 4 A 4 PHE A 139 SER A 143 -1 N LEU A 140 O TYR A 24
 SHEET 1 B 4 LEU A 53 GLU A 59 0
 SHEET 2 B 4 VAL A 62 GLY A 67 -1 N VAL A 62 O GLU A 59
 SHEET 3 B 4 ARG A 72 MET A 76 -1 O ARG A 72 N GLY A 67
 SHEET 4 B 4 LEU A 82 SER A 85 -1 O LEU A 83 N ALA A 75
 SHEET 1 C 4 LEU A 53 GLU A 59 0
 SHEET 2 C 4 VAL A 62 GLY A 67 -1 N VAL A 62 O GLU A 59
 SHEET 3 C 4 PHE A 94 LEU A 98 -1 N PHE A 94 O VAL A 63
 SHEET 4 C 4 ASN A 104 SER A 108 -1 O THR A 105 N ARG A 97
 SHEET 1 D 4 VAL B 40 VAL B 43 0
 SHEET 2 D 4 PHE B 30 ILE B 34 -1 N PHE B 31 O VAL B 43
 SHEET 3 D 4 LYS B 21 CYS B 25 -1 O LEU B 23 N LEU B 32
 SHEET 4 D 4 PHE B 139 SER B 143 -1 N LEU B 140 O TYR B 24
 SHEET 1 E 4 LEU B 53 GLU B 59 0
 SHEET 2 E 4 VAL B 62 GLY B 67 -1 N VAL B 62 O GLU B 59
 SHEET 3 E 4 ARG B 72 MET B 76 -1 O ARG B 72 N GLY B 67
 SHEET 4 E 4 LEU B 82 SER B 85 -1 O LEU B 83 N ALA B 75
 SHEET 1 F 4 LEU B 53 GLU B 59 0
 SHEET 2 F 4 VAL B 62 GLY B 67 -1 N VAL B 62 O GLU B 59
 SHEET 3 F 4 PHE B 94 LEU B 98 -1 N PHE B 94 O VAL B 63
 SHEET 4 F 4 ASN B 104 SER B 108 -1 O THR B 105 N ARG B 97

SHEET 1 G 4 VAL C 40 VAL C 43 0
 SHEET 2 G 4 PHE C 30 ILE C 34 -1 N PHE C 31 O VAL C 43
 SHEET 3 G 4 LYS C 21 CYS C 25 -1 O LEU C 23 N LEU C 32
 SHEET 4 G 4 PHE C 139 SER C 143 -1 N LEU C 140 O TYR C 24
 SHEET 1 H 4 LEU C 53 GLU C 59 0
 SHEET 2 H 4 VAL C 62 GLY C 67 -1 N VAL C 62 O GLU C 59
 SHEET 3 H 4 ARG C 72 MET C 76 -1 O ARG C 72 N GLY C 67
 SHEET 4 H 4 LEU C 82 SER C 85 -1 O LEU C 83 N ALA C 75
 SHEET 1 I 4 LEU C 53 GLU C 59 0
 SHEET 2 I 4 VAL C 62 GLY C 67 -1 N VAL C 62 O GLU C 59
 SHEET 3 I 4 PHE C 94 LEU C 98 -1 O PHE C 94 N VAL C 63
 SHEET 4 I 4 ASN C 104 SER C 108 -1 O THR C 105 N ARG C 97
 SHEET 1 J 4 VAL D 40 VAL D 43 0
 SHEET 2 J 4 PHE D 30 ILE D 34 -1 N PHE D 31 O VAL D 43
 SHEET 3 J 4 LYS D 21 CYS D 25 -1 O LEU D 23 N LEU D 32
 SHEET 4 J 4 PHE D 139 SER D 143 -1 N LEU D 140 O TYR D 24
 SHEET 1 K 4 LEU D 53 GLU D 59 0
 SHEET 2 K 4 VAL D 62 GLY D 67 -1 N VAL D 62 O GLU D 59
 SHEET 3 K 4 ARG D 72 MET D 76 -1 O ARG D 72 N GLY D 67
 SHEET 4 K 4 LEU D 82 SER D 85 -1 O LEU D 83 N ALA D 75
 SHEET 1 L 4 LEU D 53 GLU D 59 0
 SHEET 2 L 4 VAL D 62 GLY D 67 -1 N VAL D 62 O GLU D 59
 SHEET 3 L 4 PHE D 94 LEU D 98 -1 O PHE D 94 N VAL D 63
 SHEET 4 L 4 ASN D 104 SER D 108 -1 O THR D 105 N ARG D 97
 SHEET 1 M 2 ARG E 152 TRP E 156 0
 SHEET 2 M 2 ALA E 181 ASN E 184 -1 N GLY E 182 O TYR E 155
 SHEET 1 N 5 LEU E 166 PRO E 170 0
 SHEET 2 N 5 GLY E 238 VAL E 249 1 O HIS E 245 N HIS E 167
 SHEET 3 N 5 GLY E 227 ASN E 235 -1 O GLY E 227 N LEU E 246
 SHEET 4 N 5 THR E 188 LYS E 193 -1 N THR E 188 O GLU E 234
 SHEET 5 N 5 LYS E 196 GLU E 197 -1 O LYS E 196 N LYS E 193
 SHEET 1 O 3 VAL E 175 ARG E 178 0
 SHEET 2 O 3 SER E 215 MET E 218 -1 O LEU E 216 N PHE E 177
 SHEET 3 O 3 LYS E 208 ARG E 210 -1 O LYS E 208 N ILE E 217
 SHEET 1 P 2 ILE E 257 LEU E 258 0
 SHEET 2 P 2 VAL E 280 TYR E 281 -1 O TYR E 281 N ILE E 257
 SHEET 1 Q 2 VAL E 274 VAL E 277 0
 SHEET 2 Q 2 VAL E 326 ILE E 329 -1 N LEU E 327 O PHE E 276
 SHEET 1 R 4 LEU E 309 ALA E 314 0
 SHEET 2 R 4 HIS E 287 HIS E 293 -1 N TRP E 290 O LYS E 313
 SHEET 3 R 4 GLY E 338 GLY E 345 -1 O GLU E 339 N HIS E 293
 SHEET 4 R 4 ILE E 350 LEU E 357 -1 O SER E 351 N ALA E 344
 SHEET 1 S 2 ARG F 152 TRP F 156 0
 SHEET 2 S 2 ALA F 181 ASN F 184 -1 N GLY F 182 O TYR F 155
 SHEET 1 T 5 LEU F 166 PRO F 170 0
 SHEET 2 T 5 GLY F 238 VAL F 249 1 O HIS F 245 N HIS F 167
 SHEET 3 T 5 GLY F 227 ASN F 235 -1 O GLY F 227 N LEU F 246
 SHEET 4 T 5 THR F 188 LYS F 193 -1 N THR F 188 O GLU F 234
 SHEET 5 T 5 LYS F 196 GLU F 197 -1 O LYS F 196 N LYS F 193
 SHEET 1 U 3 VAL F 175 ARG F 178 0
 SHEET 2 U 3 SER F 215 MET F 218 -1 O LEU F 216 N PHE F 177
 SHEET 3 U 3 LYS F 208 ARG F 210 -1 O LYS F 208 N ILE F 217
 SHEET 1 V 2 ILE F 257 LEU F 258 0
 SHEET 2 V 2 VAL F 280 TYR F 281 -1 O TYR F 281 N ILE F 257
 SHEET 1 W 5 ALA F 266 SER F 267 0

Table 3

SHEET	2	W 5 ILE F 350	THR F 358	1	O	TRP F 356	N	ALA F 266
SHEET	3	W 5 GLY F 338	GLY F 345	-1	O	GLY F 338	N	LEU F 357
SHEET	4	W 5 HIS F 287	LYS F 292	-1	N	HIS F 287	O	GLY F 345
SHEET	5	W 5 LYS F 310	ALA F 314	-1	O	LYS F 310	N	LYS F 292
SHEET	1	X 2 VAL F 274	VAL F 277	0				
SHEET	2	X 2 VAL F 326	ILE F 329	-1	N	LEU F 327	O	PHE F 276
SHEET	1	Y 2 ARG G 152	TRP G 156	0				
SHEET	2	Y 2 ALA G 181	ASN G 184	-1	N	GLY G 182	O	TYR G 155
SHEET	1	Z 5 LEU G 166	PRO G 170	0				
SHEET	2	Z 5 GLY G 238	VAL G 249	1	O	HIS G 245	N	HIS G 167
SHEET	3	Z 5 GLY G 227	ASN G 235	-1	O	GLY G 227	N	LEU G 246
SHEET	4	Z 5 THR G 188	LYS G 193	-1	N	THR G 188	O	GLU G 234
SHEET	5	Z 5 LYS G 196	GLU G 197	-1	O	LYS G 196	N	LYS G 193
SHEET	1	AA 3 VAL G 175	ARG G 178	0				
SHEET	2	AA 3 SER G 215	MET G 218	-1	O	LEU G 216	N	PHE G 177
SHEET	3	AA 3 LYS G 208	ARG G 210	-1	O	LYS G 208	N	ILE G 217
SHEET	1	AB 2 ILE G 257	LEU G 258	0				
SHEET	2	AB 2 VAL G 280	TYR G 281	-1	O	TYR G 281	N	ILE G 257
SHEET	1	AC 5 ALA G 266	VAL G 269	0				
SHEET	2	AC 5 ILE G 350	LEU G 360	1	O	TRP G 356	N	ALA G 266
SHEET	3	AC 5 GLY G 338	GLY G 345	-1	O	GLY G 338	N	LEU G 357
SHEET	4	AC 5 HIS G 287	HIS G 293	-1	N	HIS G 287	O	GLY G 345
SHEET	5	AC 5 LEU G 309	ALA G 314	-1	O	LYS G 310	N	LYS G 292
SHEET	1	AD 2 VAL G 274	VAL G 277	0				
SHEET	2	AD 2 VAL G 326	ILE G 329	-1	N	LEU G 327	O	PHE G 276
SHEET	1	AE 2 ARG H 152	TRP H 156	0				
SHEET	2	AE 2 ALA H 181	ASN H 184	-1	N	GLY H 182	O	TYR H 155
SHEET	1	AF 5 LEU H 166	PRO H 170	0				
SHEET	2	AF 5 GLY H 238	VAL H 249	1	O	HIS H 245	N	HIS H 167
SHEET	3	AF 5 GLY H 227	ASN H 235	-1	O	GLY H 227	N	LEU H 246
SHEET	4	AF 5 THR H 188	LYS H 193	-1	N	THR H 188	O	GLU H 234
SHEET	5	AF 5 LYS H 196	GLU H 197	-1	O	LYS H 196	N	LYS H 193
SHEET	1	AG 3 VAL H 175	ARG H 178	0				
SHEET	2	AG 3 SER H 215	MET H 218	-1	O	LEU H 216	N	PHE H 177
SHEET	3	AG 3 LYS H 208	ARG H 210	-1	O	LYS H 208	N	ILE H 217
SHEET	1	AH 2 ILE H 257	LEU H 258	0				
SHEET	2	AH 2 VAL H 280	TYR H 281	-1	O	TYR H 281	N	ILE H 257
SHEET	1	AI 5 ALA H 266	VAL H 269	0				
SHEET	2	AI 5 ILE H 350	LEU H 360	1	O	TRP H 356	N	ALA H 266
SHEET	3	AI 5 GLY H 338	GLY H 345	-1	O	GLY H 338	N	LEU H 357
SHEET	4	AI 5 HIS H 287	HIS H 293	-1	N	HIS H 287	O	GLY H 345
SHEET	5	AI 5 LEU H 309	ALA H 314	-1	O	LYS H 310	N	LYS H 292
SHEET	1	AJ 2 VAL H 274	VAL H 277	0				
SHEET	2	AJ 2 VAL H 326	ILE H 329	-1	N	LEU H 327	O	PHE H 276
SSBOND	1	CYS E 179	CYS E 231					
SSBOND	2	CYS E 278	CYS E 342					
SSBOND	3	CYS F 179	CYS F 231					
SSBOND	4	CYS F 278	CYS F 342					
SSBOND	5	CYS G 179	CYS G 231					
SSBOND	6	CYS G 278	CYS G 342					
SSBOND	7	CYS H 179	CYS H 231					
SSBOND	8	CYS H 278	CYS H 342					
CISPEP	1	ASN E 184	PRO E 185	0		0.40		
CISPEP	2	LEU E 262	PRO E 263	0		-0.38		
CISPEP	3	ASN F 184	PRO F 185	0		0.15		

Table 3

CISPEP 4 LEU F 262 PRO F 263 0 -0.12
 CISPEP 5 ASN G 184 PRO G 185 0 0.49
 CISPEP 6 LEU G 262 PRO G 263 0 -0.21
 CISPEP 7 ASN H 184 PRO H 185 0 0.32
 CISPEP 8 LEU H 262 PRO H 263 0 0.10
 CRYST1 72.198 71.677 90.920 90.53 89.98 89.99 P 1 4
 ORIGX1 1.000000 0.000000 0.000000 0.000000
 ORIGX2 0.000000 1.000000 0.000000 0.000000
 ORIGX3 0.000000 0.000000 1.000000 0.000000
 SCALE1 0.013851 -0.000002 -0.000005 0.000000
 SCALE2 0.000000 0.013951 0.000129 0.000000
 SCALE3 0.000000 0.000000 0.010999 0.000000

ATOM	1	N	HIS	A	16	65.781	-6.823	6.422	1.00	40.96	N
ATOM	2	CA	HIS	A	16	66.617	-7.615	7.378	1.00	40.54	C
ATOM	3	C	HIS	A	16	68.092	-7.469	7.011	1.00	39.31	C
ATOM	4	O	HIS	A	16	68.508	-7.845	5.917	1.00	39.03	O
ATOM	5	CB	HIS	A	16	66.208	-9.095	7.337	1.00	41.05	C
ATOM	6	N	PHE	A	17	68.872	-6.932	7.942	1.00	38.01	N
ATOM	7	CA	PHE	A	17	70.295	-6.694	7.734	1.00	37.01	C
ATOM	8	C	PHE	A	17	71.138	-7.925	7.375	1.00	36.59	C
ATOM	9	O	PHE	A	17	72.148	-7.797	6.674	1.00	35.98	O
ATOM	10	CB	PHE	A	17	70.876	-6.008	8.975	1.00	35.65	C
ATOM	11	CG	PHE	A	17	70.934	-6.887	10.184	1.00	35.24	C
ATOM	12	CD1	PHE	A	17	72.061	-7.659	10.442	1.00	35.09	C
ATOM	13	CD2	PHE	A	17	69.877	-6.928	11.084	1.00	35.37	C
ATOM	14	CE1	PHE	A	17	72.139	-8.452	11.578	1.00	35.43	C
ATOM	15	CE2	PHE	A	17	69.942	-7.724	12.231	1.00	35.92	C
ATOM	16	CZ	PHE	A	17	71.075	-8.487	12.479	1.00	35.61	C
ATOM	17	N	LYS	A	18	70.743	-9.106	7.844	1.00	36.25	N
ATOM	18	CA	LYS	A	18	71.527	-10.296	7.529	1.00	37.09	C
ATOM	19	C	LYS	A	18	71.279	-10.894	6.143	1.00	37.63	C
ATOM	20	O	LYS	A	18	72.035	-11.753	5.690	1.00	38.05	O
ATOM	21	CB	LYS	A	18	71.410	-11.364	8.626	1.00	37.68	C
ATOM	22	CG	LYS	A	18	70.092	-11.449	9.358	1.00	40.55	C
ATOM	23	CD	LYS	A	18	70.220	-12.396	10.551	1.00	41.58	C
ATOM	24	CE	LYS	A	18	68.877	-12.603	11.238	1.00	42.51	C
ATOM	25	NZ	LYS	A	18	68.252	-11.308	11.616	1.00	43.74	N
ATOM	26	N	ASP	A	19	70.251	-10.412	5.453	1.00	37.64	N
ATOM	27	CA	ASP	A	19	69.948	-10.882	4.106	1.00	37.79	C
ATOM	28	C	ASP	A	19	70.899	-10.289	3.067	1.00	37.96	C
ATOM	29	O	ASP	A	19	71.364	-9.150	3.206	1.00	37.12	O
ATOM	30	CB	ASP	A	19	68.532	-10.476	3.701	1.00	39.51	C
ATOM	31	CG	ASP	A	19	67.454	-11.162	4.521	1.00	40.50	C
ATOM	32	OD1	ASP	A	19	66.291	-10.708	4.445	1.00	40.65	O
ATOM	33	OD2	ASP	A	19	67.760	-12.152	5.220	1.00	41.75	O
ATOM	34	N	PRO	A	20	71.209	-11.066	2.011	1.00	38.07	N
ATOM	35	CA	PRO	A	20	72.092	-10.620	0.929	1.00	37.64	C
ATOM	36	C	PRO	A	20	71.431	-9.441	0.211	1.00	37.31	C
ATOM	37	O	PRO	A	20	70.217	-9.264	0.300	1.00	36.68	O
ATOM	38	CB	PRO	A	20	72.208	-11.860	0.033	1.00	38.78	C
ATOM	39	CG	PRO	A	20	70.966	-12.663	0.352	1.00	39.38	C
ATOM	40	CD	PRO	A	20	70.850	-12.489	1.845	1.00	38.63	C
ATOM	41	N	LYS	A	21	72.218	-8.648	-0.508	1.00	36.88	N
ATOM	42	CA	LYS	A	21	71.676	-7.467	-1.180	1.00	37.48	C
ATOM	43	C	LYS	A	21	72.379	-7.166	-2.476	1.00	37.29	C
ATOM	44	O	LYS	A	21	73.460	-7.684	-2.752	1.00	37.08	O
ATOM	45	CB	LYS	A	21	71.872	-6.198	-0.336	1.00	37.95	C
ATOM	46	CG	LYS	A	21	71.512	-6.244	1.129	1.00	38.66	C
ATOM	47	CD	LYS	A	21	71.931	-4.921	1.755	1.00	40.44	C
ATOM	48	CE	LYS	A	21	71.606	-4.821	3.239	1.00	42.18	C
ATOM	49	NZ	LYS	A	21	71.769	-3.412	3.691	1.00	42.97	N
ATOM	50	N	ARG	A	22	71.761	-6.288	-3.254	1.00	36.67	N
ATOM	51	CA	ARG	A	22	72.355	-5.825	-4.492	1.00	36.55	C

Table 3

ATOM	52	C	ARG	A	22	72.707	-4.390	-4.132	1.00	35.63	C
ATOM	53	O	ARG	A	22	71.986	-3.755	-3.360	1.00	36.38	O
ATOM	54	CB	ARG	A	22	71.340	-5.813	-5.633	1.00	38.00	C
ATOM	55	CG	ARG	A	22	70.630	-7.118	-5.891	1.00	40.54	C
ATOM	56	CD	ARG	A	22	69.712	-6.938	-7.092	1.00	43.45	C
ATOM	57	NE	ARG	A	22	68.439	-7.649	-6.962	1.00	47.18	N
ATOM	58	CZ	ARG	A	22	68.163	-8.822	-7.524	1.00	48.01	C
ATOM	59	NH1	ARG	A	22	69.072	-9.436	-8.267	1.00	50.26	N
ATOM	60	NH2	ARG	A	22	66.971	-9.381	-7.348	1.00	48.58	N
ATOM	61	N	LEU	A	23	73.818	-3.881	-4.647	1.00	34.34	N
ATOM	62	CA	LEU	A	23	74.201	-2.502	-4.380	1.00	32.35	C
ATOM	63	C	LEU	A	23	74.093	-1.739	-5.696	1.00	32.62	C

Table 3

ATOM	64	O	LEU	A	23	74.914	-1.906	-6.603	1.00	32.26	O
ATOM	65	CB	LEU	A	23	75.617	-2.419	-3.811	1.00	30.80	C
ATOM	66	CG	LEU	A	23	75.763	-2.709	-2.306	1.00	30.93	C
ATOM	67	CD1	LEU	A	23	77.234	-2.691	-1.923	1.00	30.37	C
ATOM	68	CD2	LEU	A	23	75.009	-1.662	-1.491	1.00	29.15	C
ATOM	69	N	TYR	A	24	73.051	-0.910	-5.783	1.00	31.86	N
ATOM	70	CA	TYR	A	24	72.740	-0.103	-6.965	1.00	31.06	C
ATOM	71	C	TYR	A	24	73.479	1.236	-6.959	1.00	31.28	C
ATOM	72	O	TYR	A	24	73.373	2.008	-6.011	1.00	31.13	O
ATOM	73	CB	TYR	A	24	71.207	0.107	-7.032	1.00	30.62	C
ATOM	74	CG	TYR	A	24	70.689	1.069	-8.092	1.00	29.13	C
ATOM	75	CD1	TYR	A	24	70.769	2.450	-7.906	1.00	29.62	C
ATOM	76	CD2	TYR	A	24	70.099	0.599	-9.268	1.00	29.08	C
ATOM	77	CE1	TYR	A	24	70.271	3.346	-8.864	1.00	29.47	C
ATOM	78	CE2	TYR	A	24	69.598	1.484	-10.236	1.00	29.62	C
ATOM	79	CZ	TYR	A	24	69.686	2.859	-10.024	1.00	30.70	C
ATOM	80	OH	TYR	A	24	69.181	3.748	-10.957	1.00	31.61	O
ATOM	81	N	CYS	A	25	74.236	1.510	-8.020	1.00	31.62	N
ATOM	82	CA	CYS	A	25	74.975	2.767	-8.097	1.00	32.94	C
ATOM	83	C	CYS	A	25	74.147	3.842	-8.798	1.00	33.32	C
ATOM	84	O	CYS	A	25	73.684	3.650	-9.921	1.00	33.93	O
ATOM	85	CB	CYS	A	25	76.311	2.581	-8.836	1.00	32.09	C
ATOM	86	SG	CYS	A	25	77.380	4.066	-8.811	1.00	34.82	S
ATOM	87	N	LYS	A	26	73.963	4.970	-8.122	1.00	34.61	N
ATOM	88	CA	LYS	A	26	73.189	6.072	-8.676	1.00	36.27	C
ATOM	89	C	LYS	A	26	73.786	6.512	-10.018	1.00	37.44	C
ATOM	90	O	LYS	A	26	73.061	6.928	-10.923	1.00	37.35	O
ATOM	91	CB	LYS	A	26	73.171	7.248	-7.697	1.00	36.24	C
ATOM	92	CG	LYS	A	26	72.293	8.403	-8.145	1.00	38.36	C
ATOM	93	CD	LYS	A	26	72.480	9.630	-7.270	1.00	39.80	C
ATOM	94	CE	LYS	A	26	71.585	10.769	-7.747	1.00	41.47	C
ATOM	95	NZ	LYS	A	26	71.853	12.023	-6.987	1.00	42.04	N
ATOM	96	N	ASN	A	27	75.107	6.406	-10.148	1.00	37.91	N
ATOM	97	CA	ASN	A	27	75.782	6.790	-11.386	1.00	38.44	C
ATOM	98	C	ASN	A	27	75.509	5.753	-12.479	1.00	38.53	C
ATOM	99	O	ASN	A	27	76.092	4.663	-12.479	1.00	38.51	O
ATOM	100	CB	ASN	A	27	77.287	6.904	-11.152	1.00	40.85	C
ATOM	101	CG	ASN	A	27	78.001	7.640	-12.276	1.00	44.71	C
ATOM	102	OD1	ASN	A	27	79.237	7.582	-12.395	1.00	44.59	O
ATOM	103	ND2	ASN	A	27	77.230	8.350	-13.101	1.00	44.65	N
ATOM	104	N	GLY	A	28	74.606	6.081	-13.397	1.00	37.85	N
ATOM	105	CA	GLY	A	28	74.285	5.170	-14.481	1.00	37.25	C
ATOM	106	C	GLY	A	28	73.303	4.054	-14.159	1.00	37.29	C
ATOM	107	O	GLY	A	28	72.750	3.427	-15.065	1.00	37.26	O
ATOM	108	N	GLY	A	29	73.089	3.779	-12.878	1.00	37.91	N
ATOM	109	CA	GLY	A	29	72.153	2.730	-12.512	1.00	38.15	C
ATOM	110	C	GLY	A	29	72.674	1.313	-12.685	1.00	38.39	C
ATOM	111	O	GLY	A	29	71.937	0.423	-13.114	1.00	37.89	O
ATOM	112	N	PHE	A	30	73.946	1.100	-12.353	1.00	39.32	N
ATOM	113	CA	PHE	A	30	74.562	-0.225	-12.458	1.00	39.93	C
ATOM	114	C	PHE	A	30	74.609	-0.919	-11.102	1.00	39.45	C
ATOM	115	O	PHE	A	30	74.773	-0.275	-10.070	1.00	40.04	O
ATOM	116	CB	PHE	A	30	76.002	-0.123	-12.971	1.00	40.37	C
ATOM	117	CG	PHE	A	30	76.124	0.432	-14.354	1.00	41.36	C
ATOM	118	CD1	PHE	A	30	76.436	1.774	-14.554	1.00	40.94	C
ATOM	119	CD2	PHE	A	30	75.941	-0.393	-15.465	1.00	41.73	C
ATOM	120	CE1	PHE	A	30	76.568	2.291	-15.841	1.00	41.63	C
ATOM	121	CE2	PHE	A	30	76.070	0.111	-16.760	1.00	41.47	C
ATOM	122	CZ	PHE	A	30	76.384	1.457	-16.950	1.00	41.25	C
ATOM	123	N	PHE	A	31	74.473	-2.236	-11.113	1.00	39.36	N
ATOM	124	CA	PHE	A	31	74.540	-3.020	-9.893	1.00	38.71	C
ATOM	125	C	PHE	A	31	75.980	-3.498	-9.744	1.00	39.23	C
ATOM	126	O	PHE	A	31	76.546	-4.047	-10.688	1.00	39.27	O
ATOM	127	CB	PHE	A	31	73.599	-4.204	-10.006	1.00	38.16	C
ATOM	128	CG	PHE	A	31	72.164	-3.837	-9.855	1.00	37.93	C
ATOM	129	CD1	PHE	A	31	71.654	-3.494	-8.605	1.00	36.22	C

Table 3

ATOM	130	CD2	PHE	A	31	71.315	-3.821	-10.958	1.00	38.03	C
ATOM	131	CE1	PHE	A	31	70.317	-3.143	-8.454	1.00	36.77	C
ATOM	132	CE2	PHE	A	31	69.965	-3.467	-10.815	1.00	38.19	C
ATOM	133	CZ	PHE	A	31	69.469	-3.128	-9.557	1.00	36.80	C
ATOM	134	N	LEU	A	32	76.580	-3.279	-8.575	1.00	39.11	N
ATOM	135	CA	LEU	A	32	77.959	-3.707	-8.352	1.00	39.72	C
ATOM	136	C	LEU	A	32	78.047	-5.205	-8.596	1.00	40.18	C
ATOM	137	O	LEU	A	32	77.254	-5.972	-8.048	1.00	40.08	O
ATOM	138	CB	LEU	A	32	78.403	-3.395	-6.922	1.00	40.02	C
ATOM	139	CG	LEU	A	32	79.896	-3.576	-6.645	1.00	39.28	C
ATOM	140	CD1	LEU	A	32	80.700	-2.659	-7.556	1.00	39.53	C
ATOM	141	CD2	LEU	A	32	80.194	-3.263	-5.187	1.00	39.11	C
ATOM	142	N	ARG	A	33	79.006	-5.621	-9.420	1.00	41.12	N
ATOM	143	CA	ARG	A	33	79.162	-7.038	-9.751	1.00	41.65	C
ATOM	144	C	ARG	A	33	80.543	-7.605	-9.427	1.00	41.77	C
ATOM	145	O	ARG	A	33	81.568	-6.987	-9.720	1.00	41.35	O
ATOM	146	CB	ARG	A	33	78.851	-7.253	-11.236	1.00	41.70	C
ATOM	147	CG	ARG	A	33	79.046	-8.686	-11.700	1.00	42.74	C
ATOM	148	CD	ARG	A	33	78.491	-8.922	-13.089	1.00	41.98	C
ATOM	149	NE	ARG	A	33	79.193	-8.155	-14.113	1.00	43.07	N
ATOM	150	CZ	ARG	A	33	78.905	-8.208	-15.413	1.00	43.19	C
ATOM	151	NH1	ARG	A	33	77.927	-8.996	-15.848	1.00	42.00	N
ATOM	152	NH2	ARG	A	33	79.590	-7.469	-16.279	1.00	42.32	N
ATOM	153	N	ILE	A	34	80.561	-8.785	-8.813	1.00	42.97	N
ATOM	154	CA	ILE	A	34	81.820	-9.442	-8.465	1.00	44.25	C
ATOM	155	C	ILE	A	34	81.917	-10.784	-9.186	1.00	45.31	C
ATOM	156	O	ILE	A	34	81.232	-11.743	-8.837	1.00	45.06	O
ATOM	157	CB	ILE	A	34	81.957	-9.626	-6.933	1.00	44.16	C
ATOM	158	CG1	ILE	A	34	82.190	-8.253	-6.285	1.00	43.89	C
ATOM	159	CG2	ILE	A	34	83.115	-10.575	-6.604	1.00	43.90	C
ATOM	160	CD1	ILE	A	34	82.527	-8.297	-4.818	1.00	43.24	C
ATOM	161	N	HIS	A	35	82.766	-10.819	-10.213	1.00	47.73	N
ATOM	162	CA	HIS	A	35	82.984	-12.008	-11.044	1.00	49.67	C
ATOM	163	C	HIS	A	35	83.746	-13.118	-10.335	1.00	50.49	C
ATOM	164	O	HIS	A	35	84.558	-12.859	-9.442	1.00	50.08	O
ATOM	165	CB	HIS	A	35	83.761	-11.638	-12.307	1.00	50.99	C
ATOM	166	CG	HIS	A	35	83.016	-10.736	-13.239	1.00	52.80	C
ATOM	167	ND1	HIS	A	35	81.950	-11.167	-13.998	1.00	53.66	N
ATOM	168	CD2	HIS	A	35	83.200	-9.432	-13.551	1.00	53.29	C
ATOM	169	CE1	HIS	A	35	81.511	-10.167	-14.741	1.00	54.14	C
ATOM	170	NE2	HIS	A	35	82.252	-9.102	-14.488	1.00	54.32	N
ATOM	171	N	PRO	A	36	83.510	-14.376	-10.748	1.00	51.42	N
ATOM	172	CA	PRO	A	36	84.171	-15.543	-10.158	1.00	51.76	C
ATOM	173	C	PRO	A	36	85.698	-15.454	-10.187	1.00	52.11	C
ATOM	174	O	PRO	A	36	86.365	-15.951	-9.281	1.00	52.27	O
ATOM	175	CB	PRO	A	36	83.632	-16.700	-10.998	1.00	52.08	C
ATOM	176	CG	PRO	A	36	82.239	-16.235	-11.327	1.00	52.48	C
ATOM	177	CD	PRO	A	36	82.487	-14.795	-11.725	1.00	51.66	C
ATOM	178	N	ASP	A	37	86.246	-14.813	-11.217	1.00	52.61	N
ATOM	179	CA	ASP	A	37	87.696	-14.685	-11.328	1.00	52.96	C
ATOM	180	C	ASP	A	37	88.259	-13.462	-10.616	1.00	52.62	C
ATOM	181	O	ASP	A	37	89.444	-13.154	-10.746	1.00	53.00	O
ATOM	182	CB	ASP	A	37	88.141	-14.688	-12.803	1.00	54.40	C
ATOM	183	CG	ASP	A	37	87.511	-13.570	-13.620	1.00	55.76	C
ATOM	184	OD1	ASP	A	37	86.310	-13.676	-13.962	1.00	55.75	O
ATOM	185	OD2	ASP	A	37	88.226	-12.584	-13.917	1.00	56.34	O
ATOM	186	N	GLY	A	38	87.410	-12.761	-9.868	1.00	52.10	N
ATOM	187	CA	GLY	A	38	87.874	-11.601	-9.126	1.00	50.89	C
ATOM	188	C	GLY	A	38	87.793	-10.223	-9.766	1.00	50.43	C
ATOM	189	O	GLY	A	38	88.254	-9.248	-9.168	1.00	51.26	O
ATOM	190	N	ARG	A	39	87.222	-10.115	-10.960	1.00	49.14	N
ATOM	191	CA	ARG	A	39	87.106	-8.811	-11.615	1.00	48.54	C
ATOM	192	C	ARG	A	39	85.884	-8.066	-11.060	1.00	47.80	C
ATOM	193	O	ARG	A	39	84.876	-8.689	-10.717	1.00	47.58	O
ATOM	194	CB	ARG	A	39	86.973	-8.991	-13.135	1.00	47.72	C
ATOM	195	N	VAL	A	40	85.975	-6.740	-10.976	1.00	46.88	N

Table 3

ATOM	196	CA	VAL	A	40	84.872	-5.940	-10.455	1.00	46.37	C
ATOM	197	C	VAL	A	40	84.383	-4.864	-11.421	1.00	45.86	C
ATOM	198	O	VAL	A	40	85.169	-4.049	-11.909	1.00	45.70	O
ATOM	199	CB	VAL	A	40	85.268	-5.258	-9.127	1.00	46.76	C
ATOM	200	CG1	VAL	A	40	84.140	-4.323	-8.648	1.00	46.23	C
ATOM	201	CG2	VAL	A	40	85.559	-6.324	-8.075	1.00	46.01	C
ATOM	202	N	ASP	A	41	83.079	-4.872	-11.689	1.00	45.56	N
ATOM	203	CA	ASP	A	41	82.458	-3.885	-12.570	1.00	45.56	C
ATOM	204	C	ASP	A	41	80.972	-3.757	-12.231	1.00	45.60	C
ATOM	205	O	ASP	A	41	80.517	-4.264	-11.201	1.00	45.05	O
ATOM	206	CB	ASP	A	41	82.627	-4.287	-14.039	1.00	45.40	C
ATOM	207	CG	ASP	A	41	81.851	-5.543	-14.399	1.00	45.94	C
ATOM	208	OD1	ASP	A	41	81.894	-5.949	-15.584	1.00	47.24	O
ATOM	209	OD2	ASP	A	41	81.201	-6.129	-13.507	1.00	46.40	O
ATOM	210	N	GLY	A	42	80.226	-3.082	-13.103	1.00	45.52	N
ATOM	211	CA	GLY	A	42	78.803	-2.902	-12.885	1.00	45.62	C
ATOM	212	C	GLY	A	42	77.992	-3.371	-14.076	1.00	46.37	C
ATOM	213	O	GLY	A	42	78.498	-3.432	-15.194	1.00	46.33	O
ATOM	214	N	VAL	A	43	76.736	-3.725	-13.831	1.00	47.09	N
ATOM	215	CA	VAL	A	43	75.833	-4.176	-14.883	1.00	47.46	C
ATOM	216	C	VAL	A	43	74.413	-3.793	-14.527	1.00	47.90	C
ATOM	217	O	VAL	A	43	74.084	-3.654	-13.351	1.00	48.34	O
ATOM	218	CB	VAL	A	43	75.876	-5.698	-15.085	1.00	47.31	C
ATOM	219	CG1	VAL	A	43	77.025	-6.052	-15.978	1.00	48.06	C
ATOM	220	CG2	VAL	A	43	75.988	-6.404	-13.754	1.00	46.61	C
ATOM	221	N	ARG	A	44	73.573	-3.634	-15.542	1.00	48.06	N
ATOM	222	CA	ARG	A	44	72.192	-3.243	-15.319	1.00	48.74	C
ATOM	223	C	ARG	A	44	71.206	-4.396	-15.200	1.00	49.88	C
ATOM	224	O	ARG	A	44	70.122	-4.220	-14.648	1.00	50.17	O
ATOM	225	CB	ARG	A	44	71.749	-2.268	-16.412	1.00	47.88	C
ATOM	226	CG	ARG	A	44	72.389	-0.900	-16.258	1.00	47.04	C
ATOM	227	CD	ARG	A	44	72.229	-0.029	-17.481	1.00	45.80	C
ATOM	228	NE	ARG	A	44	72.842	1.279	-17.268	1.00	45.57	N
ATOM	229	CZ	ARG	A	44	73.279	2.064	-18.245	1.00	45.12	C
ATOM	230	NH1	ARG	A	44	73.173	1.665	-19.506	1.00	45.80	N
ATOM	231	NH2	ARG	A	44	73.824	3.242	-17.966	1.00	43.95	N
ATOM	232	N	GLU	A	45	71.578	-5.576	-15.687	1.00	50.58	N
ATOM	233	CA	GLU	A	45	70.686	-6.731	-15.619	1.00	52.24	C
ATOM	234	C	GLU	A	45	70.476	-7.247	-14.192	1.00	53.19	C
ATOM	235	O	GLU	A	45	71.344	-7.911	-13.617	1.00	53.26	O
ATOM	236	CB	GLU	A	45	71.215	-7.865	-16.505	1.00	52.83	C
ATOM	237	N	LYS	A	46	69.306	-6.947	-13.634	1.00	53.61	N
ATOM	238	CA	LYS	A	46	68.965	-7.367	-12.283	1.00	53.94	C
ATOM	239	C	LYS	A	46	69.011	-8.886	-12.097	1.00	53.99	C
ATOM	240	O	LYS	A	46	68.992	-9.379	-10.969	1.00	54.53	O
ATOM	241	CB	LYS	A	46	67.571	-6.842	-11.918	1.00	53.70	C
ATOM	242	N	SER	A	47	69.091	-9.625	-13.198	1.00	53.70	N
ATOM	243	CA	SER	A	47	69.110	-11.086	-13.132	1.00	53.88	C
ATOM	244	C	SER	A	47	70.499	-11.699	-12.976	1.00	53.81	C
ATOM	245	O	SER	A	47	70.630	-12.877	-12.648	1.00	54.39	O
ATOM	246	CB	SER	A	47	68.437	-11.674	-14.379	1.00	53.87	C
ATOM	247	N	ASP	A	48	71.537	-10.904	-13.209	1.00	53.60	N
ATOM	248	CA	ASP	A	48	72.902	-11.401	-13.100	1.00	53.26	C
ATOM	249	C	ASP	A	48	73.153	-12.030	-11.729	1.00	52.56	C
ATOM	250	O	ASP	A	48	72.925	-11.403	-10.694	1.00	52.29	O
ATOM	251	CB	ASP	A	48	73.895	-10.259	-13.363	1.00	54.16	C
ATOM	252	CG	ASP	A	48	75.329	-10.746	-13.472	1.00	55.48	C
ATOM	253	OD1	ASP	A	48	76.155	-10.039	-14.093	1.00	56.03	O
ATOM	254	OD2	ASP	A	48	75.633	-11.831	-12.931	1.00	56.13	O
ATOM	255	N	PRO	A	49	73.626	-13.289	-11.709	1.00	52.00	N
ATOM	256	CA	PRO	A	49	73.908	-14.015	-10.466	1.00	50.81	C
ATOM	257	C	PRO	A	49	75.125	-13.514	-9.687	1.00	49.76	C
ATOM	258	O	PRO	A	49	75.337	-13.915	-8.545	1.00	49.74	O
ATOM	259	CB	PRO	A	49	74.083	-15.450	-10.948	1.00	51.73	C
ATOM	260	CG	PRO	A	49	74.740	-15.249	-12.294	1.00	51.98	C
ATOM	261	CD	PRO	A	49	73.903	-14.136	-12.885	1.00	52.08	C

Table 3

ATOM	262	N	HIS	A	50	75.913	-12.630	-10.288	1.00	48.41	N
ATOM	263	CA	HIS	A	50	77.100	-12.118	-9.611	1.00	47.20	C
ATOM	264	C	HIS	A	50	76.963	-10.738	-8.956	1.00	45.56	C
ATOM	265	O	HIS	A	50	77.965	-10.094	-8.645	1.00	44.52	O
ATOM	266	CB	HIS	A	50	78.280	-12.116	-10.578	1.00	48.84	C
ATOM	267	CG	HIS	A	50	78.506	-13.439	-11.238	1.00	50.65	C
ATOM	268	ND1	HIS	A	50	78.526	-14.625	-10.535	1.00	51.45	N
ATOM	269	CD2	HIS	A	50	78.703	-13.765	-12.536	1.00	50.93	C
ATOM	270	CE1	HIS	A	50	78.725	-15.626	-11.374	1.00	51.59	C
ATOM	271	NE2	HIS	A	50	78.834	-15.131	-12.594	1.00	51.88	N
ATOM	272	N	ILE	A	51	75.729	-10.286	-8.751	1.00	44.07	N
ATOM	273	CA	ILE	A	51	75.506	-9.003	-8.095	1.00	42.96	C
ATOM	274	C	ILE	A	51	74.869	-9.212	-6.724	1.00	42.25	C
ATOM	275	O	ILE	A	51	74.588	-8.247	-6.005	1.00	41.38	O
ATOM	276	CB	ILE	A	51	74.623	-8.063	-8.938	1.00	42.32	C
ATOM	277	CG1	ILE	A	51	73.259	-8.700	-9.187	1.00	42.29	C
ATOM	278	CG2	ILE	A	51	75.324	-7.743	-10.243	1.00	42.67	C
ATOM	279	CD1	ILE	A	51	72.237	-7.734	-9.762	1.00	43.48	C
ATOM	280	N	LYS	A	52	74.636	-10.475	-6.370	1.00	41.29	N
ATOM	281	CA	LYS	A	52	74.070	-10.805	-5.068	1.00	40.84	C
ATOM	282	C	LYS	A	52	75.232	-10.757	-4.078	1.00	39.49	C
ATOM	283	O	LYS	A	52	76.151	-11.580	-4.143	1.00	39.35	O
ATOM	284	CB	LYS	A	52	73.442	-12.196	-5.099	1.00	42.75	C
ATOM	285	CG	LYS	A	52	72.764	-12.568	-3.808	1.00	45.60	C
ATOM	286	CD	LYS	A	52	72.076	-13.923	-3.898	1.00	47.67	C
ATOM	287	CE	LYS	A	52	71.517	-14.326	-2.541	1.00	49.65	C
ATOM	288	NZ	LYS	A	52	70.843	-15.651	-2.558	1.00	51.56	N
ATOM	289	N	LEU	A	53	75.198	-9.776	-3.180	1.00	36.84	N
ATOM	290	CA	LEU	A	53	76.270	-9.589	-2.213	1.00	34.80	C
ATOM	291	C	LEU	A	53	75.875	-9.831	-0.765	1.00	34.19	C
ATOM	292	O	LEU	A	53	74.700	-9.783	-0.406	1.00	35.12	O
ATOM	293	CB	LEU	A	53	76.820	-8.178	-2.348	1.00	34.31	C
ATOM	294	CG	LEU	A	53	77.297	-7.809	-3.744	1.00	33.98	C
ATOM	295	CD1	LEU	A	53	77.548	-6.324	-3.823	1.00	33.55	C
ATOM	296	CD2	LEU	A	53	78.561	-8.590	-4.056	1.00	34.91	C
ATOM	297	N	GLN	A	54	76.875	-10.085	0.069	1.00	32.74	N
ATOM	298	CA	GLN	A	54	76.642	-10.326	1.487	1.00	32.06	C
ATOM	299	C	GLN	A	54	77.473	-9.353	2.305	1.00	31.38	C
ATOM	300	O	GLN	A	54	78.703	-9.459	2.315	1.00	30.82	O
ATOM	301	CB	GLN	A	54	77.062	-11.748	1.869	1.00	32.52	C
ATOM	302	CG	GLN	A	54	76.733	-12.126	3.307	1.00	32.29	C
ATOM	303	CD	GLN	A	54	75.241	-12.187	3.551	1.00	34.18	C
ATOM	304	OE1	GLN	A	54	74.533	-13.005	2.954	1.00	34.26	O
ATOM	305	NE2	GLN	A	54	74.748	-11.316	4.424	1.00	33.63	N
ATOM	306	N	LEU	A	55	76.822	-8.410	2.985	1.00	30.29	N
ATOM	307	CA	LEU	A	55	77.561	-7.456	3.816	1.00	30.86	C
ATOM	308	C	LEU	A	55	77.673	-8.028	5.233	1.00	30.05	C
ATOM	309	O	LEU	A	55	76.807	-8.780	5.679	1.00	29.32	O
ATOM	310	CB	LEU	A	55	76.862	-6.086	3.852	1.00	31.28	C
ATOM	311	CG	LEU	A	55	76.483	-5.369	2.537	1.00	33.52	C
ATOM	312	CD1	LEU	A	55	76.469	-3.868	2.778	1.00	32.75	C
ATOM	313	CD2	LEU	A	55	77.478	-5.687	1.427	1.00	33.68	C
ATOM	314	N	GLN	A	56	78.746	-7.682	5.930	1.00	28.63	N
ATOM	315	CA	GLN	A	56	78.962	-8.173	7.282	1.00	28.77	C
ATOM	316	C	GLN	A	56	79.827	-7.164	8.016	1.00	29.04	C
ATOM	317	O	GLN	A	56	80.889	-6.790	7.522	1.00	28.60	O
ATOM	318	CB	GLN	A	56	79.658	-9.545	7.229	1.00	28.70	C
ATOM	319	CG	GLN	A	56	80.009	-10.173	8.586	1.00	29.29	C
ATOM	320	CD	GLN	A	56	78.798	-10.400	9.469	1.00	28.66	C
ATOM	321	OE1	GLN	A	56	77.906	-11.192	9.143	1.00	29.16	O
ATOM	322	NE2	GLN	A	56	78.754	-9.695	10.597	1.00	29.84	N
ATOM	323	N	ALA	A	57	79.362	-6.714	9.178	1.00	29.57	N
ATOM	324	CA	ALA	A	57	80.104	-5.744	9.977	1.00	30.66	C
ATOM	325	C	ALA	A	57	81.261	-6.418	10.721	1.00	31.59	C
ATOM	326	O	ALA	A	57	81.094	-7.491	11.295	1.00	31.05	O
ATOM	327	CB	ALA	A	57	79.162	-5.072	10.977	1.00	30.28	C

Table 3

ATOM	328	N	GLU	A	58	82.430	-5.783	10.708	1.00	32.12	N
ATOM	329	CA	GLU	A	58	83.595	-6.330	11.391	1.00	33.18	C
ATOM	330	C	GLU	A	58	83.752	-5.580	12.713	1.00	33.89	C
ATOM	331	O	GLU	A	58	84.270	-6.119	13.695	1.00	33.53	O
ATOM	332	CB	GLU	A	58	84.845	-6.173	10.515	1.00	34.27	C
ATOM	333	CG	GLU	A	58	85.985	-7.131	10.859	1.00	35.60	C
ATOM	334	CD	GLU	A	58	85.594	-8.601	10.725	1.00	37.03	C
ATOM	335	OE1	GLU	A	58	84.964	-8.980	9.715	1.00	37.39	O
ATOM	336	OE2	GLU	A	58	85.926	-9.387	11.635	1.00	39.38	O
ATOM	337	N	GLU	A	59	83.309	-4.325	12.710	1.00	34.07	N
ATOM	338	CA	GLU	A	59	83.308	-3.467	13.891	1.00	34.95	C
ATOM	339	C	GLU	A	59	82.302	-2.353	13.593	1.00	33.54	C
ATOM	340	O	GLU	A	59	81.825	-2.236	12.465	1.00	33.43	O
ATOM	341	CB	GLU	A	59	84.707	-2.904	14.195	1.00	36.91	C
ATOM	342	CG	GLU	A	59	85.182	-1.759	13.322	1.00	40.94	C
ATOM	343	CD	GLU	A	59	86.539	-1.224	13.774	1.00	43.27	C
ATOM	344	OE1	GLU	A	59	87.532	-1.977	13.689	1.00	45.02	O
ATOM	345	OE2	GLU	A	59	86.615	-0.058	14.225	1.00	44.36	O
ATOM	346	N	ARG	A	60	81.969	-1.550	14.593	1.00	32.58	N
ATOM	347	CA	ARG	A	60	80.991	-0.486	14.413	1.00	32.17	C
ATOM	348	C	ARG	A	60	81.227	0.369	13.154	1.00	31.15	C
ATOM	349	O	ARG	A	60	82.287	0.978	12.988	1.00	30.43	O
ATOM	350	CB	ARG	A	60	80.981	0.381	15.676	1.00	33.58	C
ATOM	351	CG	ARG	A	60	79.844	1.365	15.781	1.00	36.07	C
ATOM	352	CD	ARG	A	60	79.939	2.142	17.087	1.00	38.02	C
ATOM	353	NE	ARG	A	60	79.379	3.472	16.921	1.00	42.32	N
ATOM	354	CZ	ARG	A	60	80.065	4.601	17.059	1.00	44.12	C
ATOM	355	NH1	ARG	A	60	81.351	4.574	17.384	1.00	44.60	N
ATOM	356	NH2	ARG	A	60	79.466	5.761	16.829	1.00	46.46	N
ATOM	357	N	GLY	A	61	80.245	0.383	12.253	1.00	29.90	N
ATOM	358	CA	GLY	A	61	80.356	1.185	11.043	1.00	28.83	C
ATOM	359	C	GLY	A	61	81.330	0.720	9.972	1.00	28.80	C
ATOM	360	O	GLY	A	61	81.550	1.430	8.986	1.00	28.16	O
ATOM	361	N	VAL	A	62	81.913	-0.467	10.148	1.00	28.29	N
ATOM	362	CA	VAL	A	62	82.861	-1.000	9.171	1.00	27.10	C
ATOM	363	C	VAL	A	62	82.384	-2.354	8.646	1.00	26.34	C
ATOM	364	O	VAL	A	62	82.059	-3.248	9.422	1.00	25.88	O
ATOM	365	CB	VAL	A	62	84.265	-1.161	9.799	1.00	28.53	C
ATOM	366	CG1	VAL	A	62	85.279	-1.603	8.723	1.00	29.17	C
ATOM	367	CG2	VAL	A	62	84.702	0.152	10.450	1.00	28.29	C
ATOM	368	N	VAL	A	63	82.343	-2.517	7.328	1.00	25.99	N
ATOM	369	CA	VAL	A	63	81.878	-3.781	6.762	1.00	25.26	C
ATOM	370	C	VAL	A	63	82.788	-4.378	5.695	1.00	26.19	C
ATOM	371	O	VAL	A	63	83.677	-3.704	5.157	1.00	26.01	O
ATOM	372	CB	VAL	A	63	80.474	-3.634	6.109	1.00	24.65	C
ATOM	373	CG1	VAL	A	63	79.509	-2.926	7.065	1.00	25.24	C
ATOM	374	CG2	VAL	A	63	80.587	-2.856	4.794	1.00	22.71	C
ATOM	375	N	SER	A	64	82.552	-5.655	5.405	1.00	26.88	N
ATOM	376	CA	SER	A	64	83.263	-6.358	4.341	1.00	27.68	C
ATOM	377	C	SER	A	64	82.119	-6.687	3.375	1.00	27.92	C
ATOM	378	O	SER	A	64	80.979	-6.878	3.804	1.00	28.11	O
ATOM	379	CB	SER	A	64	83.946	-7.646	4.846	1.00	27.31	C
ATOM	380	OG	SER	A	64	83.020	-8.615	5.315	1.00	27.80	O
ATOM	381	N	ILE	A	65	82.415	-6.712	2.082	1.00	27.99	N
ATOM	382	CA	ILE	A	65	81.410	-6.996	1.068	1.00	29.29	C
ATOM	383	C	ILE	A	65	81.827	-8.241	0.264	1.00	31.00	C
ATOM	384	O	ILE	A	65	82.841	-8.223	-0.439	1.00	29.42	O
ATOM	385	CB	ILE	A	65	81.258	-5.786	0.121	1.00	29.51	C
ATOM	386	CG1	ILE	A	65	80.756	-4.565	0.908	1.00	30.05	C
ATOM	387	CG2	ILE	A	65	80.277	-6.117	-0.990	1.00	30.34	C
ATOM	388	CD1	ILE	A	65	80.874	-3.234	0.160	1.00	30.18	C
ATOM	389	N	LYS	A	66	81.032	-9.306	0.356	1.00	31.83	N
ATOM	390	CA	LYS	A	66	81.353	-10.560	-0.317	1.00	34.62	C
ATOM	391	C	LYS	A	66	80.397	-10.993	-1.434	1.00	35.76	C
ATOM	392	O	LYS	A	66	79.179	-11.031	-1.251	1.00	34.62	O
ATOM	393	CB	LYS	A	66	81.451	-11.681	0.737	1.00	35.88	C

ATOM	394	CG	LYS	A	66	81.735	-13.089	0.193	1.00	36.63	C
ATOM	395	CD	LYS	A	66	81.757	-14.123	1.321	1.00	37.90	C
ATOM	396	CE	LYS	A	66	81.989	-15.544	0.806	1.00	39.28	C
ATOM	397	NZ	LYS	A	66	82.226	-16.531	1.919	1.00	39.38	N
ATOM	398	N	GLY	A	67	80.961	-11.316	-2.597	1.00	37.32	N
ATOM	399	CA	GLY	A	67	80.146	-11.789	-3.707	1.00	39.35	C
ATOM	400	C	GLY	A	67	79.760	-13.231	-3.407	1.00	41.10	C
ATOM	401	O	GLY	A	67	80.625	-14.104	-3.319	1.00	41.10	O
ATOM	402	N	VAL	A	68	78.469	-13.488	-3.233	1.00	42.27	N
ATOM	403	CA	VAL	A	68	78.006	-14.831	-2.908	1.00	44.02	C
ATOM	404	C	VAL	A	68	78.433	-15.881	-3.933	1.00	45.16	C
ATOM	405	O	VAL	A	68	79.007	-16.906	-3.560	1.00	45.69	O
ATOM	406	CB	VAL	A	68	76.465	-14.869	-2.754	1.00	44.56	C
ATOM	407	CG1	VAL	A	68	76.006	-16.280	-2.426	1.00	44.70	C
ATOM	408	CG2	VAL	A	68	76.032	-13.921	-1.639	1.00	45.21	C
ATOM	409	N	SER	A	69	78.164	-15.631	-5.214	1.00	45.89	N
ATOM	410	CA	SER	A	69	78.533	-16.582	-6.270	1.00	46.52	C
ATOM	411	C	SER	A	69	80.036	-16.769	-6.398	1.00	46.52	C
ATOM	412	O	SER	A	69	80.538	-17.889	-6.308	1.00	46.68	O
ATOM	413	CB	SER	A	69	77.974	-16.146	-7.630	1.00	47.12	C
ATOM	414	OG	SER	A	69	76.629	-16.568	-7.798	1.00	47.66	O
ATOM	415	N	ALA	A	70	80.749	-15.670	-6.609	1.00	46.10	N
ATOM	416	CA	ALA	A	70	82.193	-15.717	-6.762	1.00	46.16	C
ATOM	417	C	ALA	A	70	82.905	-16.199	-5.498	1.00	46.34	C
ATOM	418	O	ALA	A	70	84.060	-16.625	-5.556	1.00	46.73	O
ATOM	419	CB	ALA	A	70	82.710	-14.344	-7.161	1.00	46.03	C
ATOM	420	N	ASN	A	71	82.214	-16.134	-4.362	1.00	46.13	N
ATOM	421	CA	ASN	A	71	82.791	-16.540	-3.080	1.00	46.22	C
ATOM	422	C	ASN	A	71	84.099	-15.780	-2.820	1.00	45.32	C
ATOM	423	O	ASN	A	71	85.074	-16.345	-2.323	1.00	44.86	O
ATOM	424	CB	ASN	A	71	83.025	-18.061	-3.059	1.00	47.52	C
ATOM	425	CG	ASN	A	71	83.496	-18.578	-1.692	1.00	49.37	C
ATOM	426	OD1	ASN	A	71	82.985	-18.172	-0.639	1.00	49.71	O
ATOM	427	ND2	ASN	A	71	84.464	-19.494	-1.709	1.00	49.93	N
ATOM	428	N	ARG	A	72	84.100	-14.492	-3.165	1.00	44.62	N
ATOM	429	CA	ARG	A	72	85.259	-13.620	-2.980	1.00	43.24	C
ATOM	430	C	ARG	A	72	84.849	-12.325	-2.265	1.00	43.09	C
ATOM	431	O	ARG	A	72	83.665	-11.965	-2.247	1.00	42.61	O
ATOM	432	CB	ARG	A	72	85.890	-13.286	-4.331	1.00	42.91	C
ATOM	433	N	TYR	A	73	85.836	-11.637	-1.684	1.00	41.68	N
ATOM	434	CA	TYR	A	73	85.616	-10.398	-0.941	1.00	40.49	C
ATOM	435	C	TYR	A	73	86.114	-9.166	-1.696	1.00	40.25	C
ATOM	436	O	TYR	A	73	87.253	-9.145	-2.180	1.00	40.29	O
ATOM	437	CB	TYR	A	73	86.337	-10.447	0.417	1.00	39.59	C
ATOM	438	CG	TYR	A	73	85.871	-11.523	1.371	1.00	39.87	C
ATOM	439	CD1	TYR	A	73	86.428	-12.813	1.341	1.00	40.03	C
ATOM	440	CD2	TYR	A	73	84.869	-11.260	2.310	1.00	39.69	C
ATOM	441	CE1	TYR	A	73	85.988	-13.818	2.228	1.00	39.43	C
ATOM	442	CE2	TYR	A	73	84.422	-12.252	3.196	1.00	39.45	C
ATOM	443	CZ	TYR	A	73	84.983	-13.528	3.148	1.00	39.35	C
ATOM	444	OH	TYR	A	73	84.513	-14.506	4.000	1.00	38.23	O
ATOM	445	N	LEU	A	74	85.273	-8.137	-1.780	1.00	39.02	N
ATOM	446	CA	LEU	A	74	85.656	-6.899	-2.460	1.00	38.07	C
ATOM	447	C	LEU	A	74	86.859	-6.288	-1.750	1.00	38.59	C
ATOM	448	O	LEU	A	74	86.963	-6.346	-0.524	1.00	38.50	O
ATOM	449	CB	LEU	A	74	84.515	-5.887	-2.435	1.00	36.96	C
ATOM	450	CG	LEU	A	74	84.825	-4.568	-3.149	1.00	37.24	C
ATOM	451	CD1	LEU	A	74	84.673	-4.774	-4.656	1.00	35.39	C
ATOM	452	CD2	LEU	A	74	83.870	-3.465	-2.661	1.00	35.55	C
ATOM	453	N	ALA	A	75	87.768	-5.702	-2.521	1.00	39.32	N
ATOM	454	CA	ALA	A	75	88.951	-5.085	-1.942	1.00	40.14	C
ATOM	455	C	ALA	A	75	89.471	-3.946	-2.809	1.00	40.56	C
ATOM	456	O	ALA	A	75	89.246	-3.917	-4.012	1.00	39.49	O
ATOM	457	CB	ALA	A	75	90.038	-6.134	-1.746	1.00	40.67	C
ATOM	458	N	MET	A	76	90.147	-2.996	-2.178	1.00	42.11	N
ATOM	459	CA	MET	A	76	90.722	-1.874	-2.898	1.00	44.44	C

Table 3

ATOM	460	C	MET	A	76	92.229	-1.900	-2.681	1.00	45.54	C
ATOM	461	O	MET	A	76	92.697	-1.861	-1.541	1.00	45.20	O
ATOM	462	CB	MET	A	76	90.168	-0.547	-2.398	1.00	44.84	C
ATOM	463	CG	MET	A	76	90.637	0.619	-3.253	1.00	46.00	C
ATOM	464	SD	MET	A	76	90.147	2.212	-2.611	1.00	48.70	S
ATOM	465	CE	MET	A	76	88.435	2.315	-3.268	1.00	47.92	C
ATOM	466	N	LYS	A	77	92.975	-1.969	-3.783	1.00	46.80	N
ATOM	467	CA	LYS	A	77	94.435	-2.024	-3.749	1.00	48.49	C
ATOM	468	C	LYS	A	77	95.082	-0.653	-3.525	1.00	49.55	C
ATOM	469	O	LYS	A	77	94.408	0.381	-3.539	1.00	49.41	O
ATOM	470	CB	LYS	A	77	94.964	-2.643	-5.047	1.00	48.04	C
ATOM	471	N	GLU	A	78	96.397	-0.658	-3.323	1.00	50.66	N
ATOM	472	CA	GLU	A	78	97.152	0.568	-3.073	1.00	51.87	C
ATOM	473	C	GLU	A	78	97.065	1.601	-4.200	1.00	52.55	C
ATOM	474	O	GLU	A	78	97.148	2.804	-3.947	1.00	53.06	O
ATOM	475	CB	GLU	A	78	98.625	0.235	-2.798	1.00	51.76	C
ATOM	476	N	ASP	A	79	96.902	1.140	-5.437	1.00	53.11	N
ATOM	477	CA	ASP	A	79	96.815	2.061	-6.569	1.00	54.03	C
ATOM	478	C	ASP	A	79	95.384	2.535	-6.819	1.00	53.96	C
ATOM	479	O	ASP	A	79	95.123	3.263	-7.780	1.00	54.29	O
ATOM	480	CB	ASP	A	79	97.378	1.410	-7.843	1.00	54.74	C
ATOM	481	CG	ASP	A	79	96.600	0.177	-8.265	1.00	56.27	C
ATOM	482	OD1	ASP	A	79	96.970	-0.438	-9.292	1.00	56.58	O
ATOM	483	OD2	ASP	A	79	95.622	-0.181	-7.572	1.00	56.94	O
ATOM	484	N	GLY	A	80	94.462	2.116	-5.954	1.00	53.27	N
ATOM	485	CA	GLY	A	80	93.072	2.516	-6.089	1.00	52.72	C
ATOM	486	C	GLY	A	80	92.219	1.628	-6.977	1.00	51.96	C
ATOM	487	O	GLY	A	80	91.103	1.994	-7.330	1.00	52.61	O
ATOM	488	N	ARG	A	81	92.733	0.460	-7.337	1.00	50.93	N
ATOM	489	CA	ARG	A	81	91.991	-0.459	-8.192	1.00	50.23	C
ATOM	490	C	ARG	A	81	91.097	-1.379	-7.362	1.00	49.57	C
ATOM	491	O	ARG	A	81	91.411	-1.700	-6.216	1.00	48.23	O
ATOM	492	CB	ARG	A	81	92.967	-1.303	-9.023	1.00	50.47	C
ATOM	493	N	LEU	A	82	89.983	-1.807	-7.942	1.00	49.42	N
ATOM	494	CA	LEU	A	82	89.078	-2.697	-7.228	1.00	49.88	C
ATOM	495	C	LEU	A	82	89.174	-4.124	-7.746	1.00	50.11	C
ATOM	496	O	LEU	A	82	89.298	-4.352	-8.950	1.00	50.11	O
ATOM	497	CB	LEU	A	82	87.624	-2.217	-7.339	1.00	49.49	C
ATOM	498	CG	LEU	A	82	87.231	-0.941	-6.587	1.00	49.70	C
ATOM	499	CD1	LEU	A	82	85.707	-0.868	-6.496	1.00	49.71	C
ATOM	500	CD2	LEU	A	82	87.834	-0.946	-5.186	1.00	49.10	C
ATOM	501	N	LEU	A	83	89.111	-5.078	-6.822	1.00	50.38	N
ATOM	502	CA	LEU	A	83	89.177	-6.497	-7.160	1.00	50.58	C
ATOM	503	C	LEU	A	83	88.544	-7.305	-6.020	1.00	49.82	C
ATOM	504	O	LEU	A	83	88.265	-6.758	-4.956	1.00	49.94	O
ATOM	505	CB	LEU	A	83	90.642	-6.906	-7.385	1.00	51.17	C
ATOM	506	CG	LEU	A	83	91.614	-6.724	-6.211	1.00	52.27	C
ATOM	507	CD1	LEU	A	83	91.549	-7.951	-5.307	1.00	52.55	C
ATOM	508	CD2	LEU	A	83	93.034	-6.537	-6.726	1.00	52.55	C
ATOM	509	N	ALA	A	84	88.307	-8.594	-6.250	1.00	49.65	N
ATOM	510	CA	ALA	A	84	87.704	-9.466	-5.240	1.00	49.61	C
ATOM	511	C	ALA	A	84	88.662	-10.602	-4.857	1.00	49.88	C
ATOM	512	O	ALA	A	84	89.048	-11.414	-5.701	1.00	49.96	O
ATOM	513	CB	ALA	A	84	86.403	-10.038	-5.769	1.00	49.70	C
ATOM	514	N	SER	A	85	89.018	-10.659	-3.576	1.00	49.72	N
ATOM	515	CA	SER	A	85	89.959	-11.646	-3.048	1.00	49.33	C
ATOM	516	C	SER	A	85	89.334	-12.919	-2.471	1.00	49.28	C
ATOM	517	O	SER	A	85	88.257	-12.884	-1.865	1.00	48.71	O
ATOM	518	CB	SER	A	85	90.827	-10.977	-1.973	1.00	49.44	C
ATOM	519	OG	SER	A	85	91.783	-11.875	-1.445	1.00	50.34	O
ATOM	520	N	LYS	A	86	90.031	-14.039	-2.652	1.00	48.86	N
ATOM	521	CA	LYS	A	86	89.572	-15.329	-2.142	1.00	48.51	C
ATOM	522	C	LYS	A	86	89.579	-15.294	-0.619	1.00	47.67	C
ATOM	523	O	LYS	A	86	88.656	-15.787	0.032	1.00	47.20	O
ATOM	524	CB	LYS	A	86	90.488	-16.462	-2.624	1.00	48.89	C
ATOM	525	N	SER	A	87	90.626	-14.710	-0.052	1.00	46.44	N

Table 3

ATOM	526	CA	SER	A	87	90.717	-14.619	1.392	1.00	46.63	C
ATOM	527	C	SER	A	87	90.715	-13.157	1.845	1.00	46.26	C
ATOM	528	O	SER	A	87	91.195	-12.266	1.142	1.00	46.06	O
ATOM	529	CB	SER	A	87	91.969	-15.349	1.913	1.00	47.09	C
ATOM	530	OG	SER	A	87	93.166	-14.666	1.568	1.00	48.04	O
ATOM	531	N	VAL	A	88	90.169	-12.930	3.035	1.00	45.87	N
ATOM	532	CA	VAL	A	88	90.054	-11.599	3.618	1.00	45.54	C
ATOM	533	C	VAL	A	88	91.377	-10.961	4.026	1.00	45.45	C
ATOM	534	O	VAL	A	88	92.168	-11.576	4.729	1.00	45.96	O
ATOM	535	CB	VAL	A	88	89.149	-11.634	4.872	1.00	45.92	C
ATOM	536	CG1	VAL	A	88	88.924	-10.222	5.400	1.00	46.37	C
ATOM	537	CG2	VAL	A	88	87.833	-12.306	4.542	1.00	45.73	C
ATOM	538	N	THR	A	89	91.609	-9.725	3.583	1.00	45.26	N
ATOM	539	CA	THR	A	89	92.818	-8.985	3.949	1.00	45.23	C
ATOM	540	C	THR	A	89	92.389	-7.606	4.453	1.00	44.98	C
ATOM	541	O	THR	A	89	91.206	-7.283	4.445	1.00	44.71	O
ATOM	542	CB	THR	A	89	93.794	-8.799	2.761	1.00	45.77	C
ATOM	543	OG1	THR	A	89	93.386	-7.683	1.960	1.00	46.09	O
ATOM	544	CG2	THR	A	89	93.825	-10.059	1.896	1.00	46.51	C
ATOM	545	N	ASP	A	90	93.344	-6.794	4.890	1.00	45.15	N
ATOM	546	CA	ASP	A	90	93.025	-5.472	5.411	1.00	45.66	C
ATOM	547	C	ASP	A	90	92.492	-4.491	4.366	1.00	44.55	C
ATOM	548	O	ASP	A	90	92.098	-3.371	4.701	1.00	44.62	O
ATOM	549	CB	ASP	A	90	94.246	-4.860	6.093	1.00	48.43	C
ATOM	550	CG	ASP	A	90	94.072	-4.755	7.586	1.00	51.37	C
ATOM	551	OD1	ASP	A	90	92.930	-4.490	8.016	1.00	53.54	O
ATOM	552	OD2	ASP	A	90	95.067	-4.923	8.331	1.00	53.90	O
ATOM	553	N	GLU	A	91	92.494	-4.906	3.106	1.00	42.88	N
ATOM	554	CA	GLU	A	91	92.010	-4.063	2.020	1.00	41.63	C
ATOM	555	C	GLU	A	91	90.560	-4.426	1.685	1.00	40.40	C
ATOM	556	O	GLU	A	91	90.006	-3.965	0.686	1.00	39.79	O
ATOM	557	CB	GLU	A	91	92.896	-4.256	0.778	1.00	40.78	C
ATOM	558	N	CYS	A	92	89.948	-5.248	2.531	1.00	39.24	N
ATOM	559	CA	CYS	A	92	88.581	-5.693	2.298	1.00	38.89	C
ATOM	560	C	CYS	A	92	87.542	-5.075	3.240	1.00	37.51	C
ATOM	561	O	CYS	A	92	86.391	-5.508	3.256	1.00	37.21	O
ATOM	562	CB	CYS	A	92	88.532	-7.224	2.377	1.00	38.66	C
ATOM	563	SG	CYS	A	92	89.608	-8.074	1.156	1.00	40.15	S
ATOM	564	N	PHE	A	93	87.948	-4.065	4.007	1.00	36.12	N
ATOM	565	CA	PHE	A	93	87.052	-3.400	4.953	1.00	36.26	C
ATOM	566	C	PHE	A	93	86.765	-1.931	4.603	1.00	35.98	C
ATOM	567	O	PHE	A	93	87.683	-1.162	4.292	1.00	35.24	O
ATOM	568	CB	PHE	A	93	87.622	-3.514	6.366	1.00	36.32	C
ATOM	569	CG	PHE	A	93	87.740	-4.929	6.837	1.00	37.73	C
ATOM	570	CD1	PHE	A	93	86.599	-5.710	7.001	1.00	36.77	C
ATOM	571	CD2	PHE	A	93	88.994	-5.510	7.040	1.00	37.62	C
ATOM	572	CE1	PHE	A	93	86.694	-7.053	7.354	1.00	38.45	C
ATOM	573	CE2	PHE	A	93	89.104	-6.855	7.394	1.00	38.74	C
ATOM	574	CZ	PHE	A	93	87.954	-7.630	7.551	1.00	38.47	C
ATOM	575	N	PHE	A	94	85.486	-1.552	4.682	1.00	34.88	N
ATOM	576	CA	PHE	A	94	85.050	-0.204	4.329	1.00	33.78	C
ATOM	577	C	PHE	A	94	84.087	0.448	5.320	1.00	33.14	C
ATOM	578	O	PHE	A	94	83.169	-0.196	5.834	1.00	33.33	O
ATOM	579	CB	PHE	A	94	84.357	-0.238	2.969	1.00	34.11	C
ATOM	580	CG	PHE	A	94	85.166	-0.885	1.889	1.00	34.92	C
ATOM	581	CD1	PHE	A	94	86.025	-0.130	1.101	1.00	33.99	C
ATOM	582	CD2	PHE	A	94	85.074	-2.261	1.664	1.00	35.17	C
ATOM	583	CE1	PHE	A	94	86.785	-0.733	0.097	1.00	34.50	C
ATOM	584	CE2	PHE	A	94	85.833	-2.874	0.662	1.00	35.02	C
ATOM	585	CZ	PHE	A	94	86.692	-2.106	-0.123	1.00	33.91	C
ATOM	586	N	PHE	A	95	84.294	1.732	5.575	1.00	31.91	N
ATOM	587	CA	PHE	A	95	83.402	2.477	6.457	1.00	31.86	C
ATOM	588	C	PHE	A	95	82.091	2.646	5.695	1.00	29.92	C
ATOM	589	O	PHE	A	95	82.086	3.158	4.579	1.00	28.74	O
ATOM	590	CB	PHE	A	95	83.964	3.875	6.771	1.00	32.18	C
ATOM	591	CG	PHE	A	95	85.103	3.880	7.751	1.00	34.26	C

Table 3

ATOM	592	CD1	PHE	A	95	86.421	3.966	7.315	1.00	34.86	C
ATOM	593	CD2	PHE	A	95	84.856	3.838	9.117	1.00	34.93	C
ATOM	594	CE1	PHE	A	95	87.475	4.019	8.232	1.00	35.24	C
ATOM	595	CE2	PHE	A	95	85.907	3.887	10.037	1.00	36.08	C
ATOM	596	CZ	PHE	A	95	87.216	3.980	9.592	1.00	35.03	C
ATOM	597	N	GLU	A	96	80.992	2.193	6.282	1.00	29.95	N
ATOM	598	CA	GLU	A	96	79.684	2.328	5.647	1.00	30.89	C
ATOM	599	C	GLU	A	96	78.984	3.529	6.280	1.00	31.23	C
ATOM	600	O	GLU	A	96	78.910	3.637	7.500	1.00	30.95	O
ATOM	601	CB	GLU	A	96	78.843	1.059	5.855	1.00	29.09	C
ATOM	602	CG	GLU	A	96	77.449	1.150	5.233	1.00	29.15	C
ATOM	603	CD	GLU	A	96	76.613	-0.107	5.441	1.00	29.45	C
ATOM	604	OE1	GLU	A	96	76.354	-0.451	6.609	1.00	30.47	O
ATOM	605	OE2	GLU	A	96	76.218	-0.749	4.438	1.00	28.03	O
ATOM	606	N	ARG	A	97	78.476	4.423	5.445	1.00	32.89	N
ATOM	607	CA	ARG	A	97	77.795	5.624	5.931	1.00	35.01	C
ATOM	608	C	ARG	A	97	76.514	5.940	5.156	1.00	35.02	C
ATOM	609	O	ARG	A	97	76.487	5.891	3.928	1.00	34.22	O
ATOM	610	CB	ARG	A	97	78.734	6.833	5.825	1.00	37.51	C
ATOM	611	CG	ARG	A	97	78.022	8.186	5.923	1.00	41.64	C
ATOM	612	CD	ARG	A	97	77.836	8.617	7.366	1.00	44.41	C
ATOM	613	NE	ARG	A	97	79.087	9.126	7.922	1.00	46.59	N
ATOM	614	CZ	ARG	A	97	79.681	10.245	7.513	1.00	48.01	C
ATOM	615	NH1	ARG	A	97	79.131	10.976	6.544	1.00	48.75	N
ATOM	616	NH2	ARG	A	97	80.825	10.633	8.068	1.00	47.89	N
ATOM	617	N	LEU	A	98	75.450	6.246	5.887	1.00	35.75	N
ATOM	618	CA	LEU	A	98	74.189	6.641	5.267	1.00	36.00	C
ATOM	619	C	LEU	A	98	74.273	8.168	5.164	1.00	35.58	C
ATOM	620	O	LEU	A	98	74.272	8.855	6.178	1.00	35.92	O
ATOM	621	CB	LEU	A	98	72.999	6.218	6.145	1.00	35.97	C
ATOM	622	CG	LEU	A	98	71.600	6.714	5.726	1.00	36.46	C
ATOM	623	CD1	LEU	A	98	71.358	6.425	4.249	1.00	35.99	C
ATOM	624	CD2	LEU	A	98	70.523	6.034	6.583	1.00	36.05	C
ATOM	625	N	GLU	A	99	74.384	8.691	3.948	1.00	36.12	N
ATOM	626	CA	GLU	A	99	74.493	10.132	3.755	1.00	36.63	C
ATOM	627	C	GLU	A	99	73.152	10.840	3.913	1.00	37.62	C
ATOM	628	O	GLU	A	99	72.088	10.206	3.864	1.00	35.83	O
ATOM	629	CB	GLU	A	99	75.081	10.437	2.379	1.00	37.25	C
ATOM	630	CG	GLU	A	99	76.460	9.820	2.153	1.00	38.74	C
ATOM	631	CD	GLU	A	99	77.476	10.222	3.217	1.00	39.43	C
ATOM	632	OE1	GLU	A	99	78.589	9.666	3.192	1.00	40.37	O
ATOM	633	OE2	GLU	A	99	77.173	11.088	4.070	1.00	39.18	O
ATOM	634	N	SER	A	100	73.212	12.159	4.099	1.00	38.04	N
ATOM	635	CA	SER	A	100	72.011	12.970	4.281	1.00	38.26	C
ATOM	636	C	SER	A	100	71.055	12.856	3.093	1.00	37.38	C
ATOM	637	O	SER	A	100	69.850	13.072	3.239	1.00	37.46	O
ATOM	638	CB	SER	A	100	72.394	14.438	4.527	1.00	38.36	C
ATOM	639	OG	SER	A	100	73.181	14.952	3.463	1.00	40.12	O
ATOM	640	N	ASN	A	101	71.590	12.506	1.925	1.00	36.22	N
ATOM	641	CA	ASN	A	101	70.767	12.341	0.728	1.00	34.84	C
ATOM	642	C	ASN	A	101	70.080	10.973	0.689	1.00	33.40	C
ATOM	643	O	ASN	A	101	69.352	10.667	-0.254	1.00	33.62	O
ATOM	644	CB	ASN	A	101	71.620	12.516	-0.526	1.00	35.95	C
ATOM	645	CG	ASN	A	101	72.956	11.783	-0.434	1.00	38.04	C
ATOM	646	OD1	ASN	A	101	73.042	10.666	0.091	1.00	36.23	O
ATOM	647	ND2	ASN	A	101	74.008	12.412	-0.959	1.00	38.32	N
ATOM	648	N	ASN	A	102	70.320	10.162	1.718	1.00	32.04	N
ATOM	649	CA	ASN	A	102	69.752	8.822	1.844	1.00	31.07	C
ATOM	650	C	ASN	A	102	70.351	7.711	0.971	1.00	30.18	C
ATOM	651	O	ASN	A	102	69.705	6.678	0.750	1.00	27.66	O
ATOM	652	CB	ASN	A	102	68.237	8.844	1.634	1.00	32.35	C
ATOM	653	CG	ASN	A	102	67.487	9.206	2.896	1.00	34.59	C
ATOM	654	OD1	ASN	A	102	68.012	9.072	4.010	1.00	34.67	O
ATOM	655	ND2	ASN	A	102	66.246	9.655	2.734	1.00	35.07	N
ATOM	656	N	TYR	A	103	71.564	7.934	0.466	1.00	28.14	N
ATOM	657	CA	TYR	A	103	72.280	6.916	-0.309	1.00	27.47	C

ATOM	658	C	TYR	A	103	73.419	6.488	0.608	1.00	26.83	C
ATOM	659	O	TYR	A	103	73.727	7.195	1.568	1.00	25.26	O
ATOM	660	CB	TYR	A	103	72.874	7.485	-1.600	1.00	27.20	C
ATOM	661	CG	TYR	A	103	71.882	7.684	-2.719	1.00	28.12	C
ATOM	662	CD1	TYR	A	103	71.564	6.640	-3.586	1.00	27.59	C
ATOM	663	CD2	TYR	A	103	71.281	8.930	-2.932	1.00	27.54	C
ATOM	664	CE1	TYR	A	103	70.685	6.830	-4.638	1.00	28.35	C
ATOM	665	CE2	TYR	A	103	70.395	9.130	-3.981	1.00	28.24	C
ATOM	666	CZ	TYR	A	103	70.101	8.080	-4.828	1.00	28.25	C
ATOM	667	OH	TYR	A	103	69.215	8.265	-5.856	1.00	28.55	O
ATOM	668	N	ASN	A	104	74.032	5.343	0.313	1.00	25.83	N
ATOM	669	CA	ASN	A	104	75.146	4.842	1.112	1.00	25.48	C
ATOM	670	C	ASN	A	104	76.486	5.082	0.417	1.00	24.49	C
ATOM	671	O	ASN	A	104	76.544	5.176	-0.803	1.00	24.92	O
ATOM	672	CB	ASN	A	104	75.006	3.333	1.337	1.00	25.94	C
ATOM	673	CG	ASN	A	104	73.980	2.983	2.400	1.00	27.69	C
ATOM	674	OD1	ASN	A	104	73.342	3.860	2.998	1.00	25.70	O
ATOM	675	ND2	ASN	A	104	73.819	1.680	2.646	1.00	26.43	N
ATOM	676	N	THR	A	105	77.555	5.186	1.198	1.00	24.18	N
ATOM	677	CA	THR	A	105	78.901	5.317	0.636	1.00	24.45	C
ATOM	678	C	THR	A	105	79.805	4.316	1.370	1.00	24.99	C
ATOM	679	O	THR	A	105	79.577	3.995	2.542	1.00	23.75	O
ATOM	680	CB	THR	A	105	79.534	6.703	0.838	1.00	23.48	C
ATOM	681	OG1	THR	A	105	79.479	7.037	2.230	1.00	24.08	O
ATOM	682	CG2	THR	A	105	78.852	7.752	-0.026	1.00	23.94	C
ATOM	683	N	TYR	A	106	80.828	3.839	0.672	1.00	25.52	N
ATOM	684	CA	TYR	A	106	81.768	2.873	1.222	1.00	27.52	C
ATOM	685	C	TYR	A	106	83.191	3.402	1.052	1.00	29.31	C
ATOM	686	O	TYR	A	106	83.715	3.461	-0.064	1.00	29.05	O
ATOM	687	CB	TYR	A	106	81.577	1.531	0.504	1.00	26.36	C
ATOM	688	CG	TYR	A	106	80.223	0.933	0.807	1.00	24.59	C
ATOM	689	CD1	TYR	A	106	79.982	0.278	2.024	1.00	23.67	C
ATOM	690	CD2	TYR	A	106	79.149	1.120	-0.065	1.00	23.83	C
ATOM	691	CE1	TYR	A	106	78.690	-0.169	2.367	1.00	24.28	C
ATOM	692	CE2	TYR	A	106	77.852	0.682	0.268	1.00	24.28	C
ATOM	693	CZ	TYR	A	106	77.628	0.044	1.479	1.00	23.75	C
ATOM	694	OH	TYR	A	106	76.338	-0.348	1.807	1.00	23.41	O
ATOM	695	N	ARG	A	107	83.793	3.804	2.167	1.00	31.22	N
ATOM	696	CA	ARG	A	107	85.142	4.369	2.182	1.00	33.44	C
ATOM	697	C	ARG	A	107	86.175	3.400	2.788	1.00	33.71	C
ATOM	698	O	ARG	A	107	85.979	2.870	3.874	1.00	32.90	O
ATOM	699	CB	ARG	A	107	85.110	5.693	2.961	1.00	33.34	C
ATOM	700	CG	ARG	A	107	86.390	6.517	2.919	1.00	33.84	C
ATOM	701	CD	ARG	A	107	86.147	7.883	3.550	1.00	33.44	C
ATOM	702	NE	ARG	A	107	85.639	7.773	4.919	1.00	33.98	N
ATOM	703	CZ	ARG	A	107	86.396	7.548	5.991	1.00	35.38	C
ATOM	704	NH1	ARG	A	107	87.712	7.415	5.861	1.00	37.25	N
ATOM	705	NH2	ARG	A	107	85.840	7.418	7.191	1.00	34.53	N
ATOM	706	N	SER	A	108	87.266	3.177	2.060	1.00	36.11	N
ATOM	707	CA	SER	A	108	88.345	2.270	2.475	1.00	37.06	C
ATOM	708	C	SER	A	108	88.890	2.572	3.866	1.00	37.88	C
ATOM	709	O	SER	A	108	89.251	3.713	4.162	1.00	37.86	O
ATOM	710	CB	SER	A	108	89.494	2.342	1.464	1.00	37.14	C
ATOM	711	OG	SER	A	108	90.533	1.433	1.779	1.00	38.83	O
ATOM	712	N	ARG	A	109	88.957	1.555	4.724	1.00	38.90	N
ATOM	713	CA	ARG	A	109	89.485	1.779	6.063	1.00	40.45	C
ATOM	714	C	ARG	A	109	91.011	1.889	6.005	1.00	41.31	C
ATOM	715	O	ARG	A	109	91.630	2.487	6.886	1.00	40.95	O
ATOM	716	CB	ARG	A	109	89.078	0.657	7.020	1.00	40.32	C
ATOM	717	CG	ARG	A	109	89.395	0.986	8.476	1.00	41.68	C
ATOM	718	CD	ARG	A	109	88.858	-0.060	9.446	1.00	42.89	C
ATOM	719	NE	ARG	A	109	89.418	-1.384	9.187	1.00	45.20	N
ATOM	720	CZ	ARG	A	109	89.221	-2.452	9.959	1.00	45.77	C
ATOM	721	NH1	ARG	A	109	88.471	-2.362	11.049	1.00	46.70	N
ATOM	722	NH2	ARG	A	109	89.783	-3.615	9.648	1.00	45.83	N
ATOM	723	N	LYS	A	110	91.604	1.319	4.959	1.00	42.40	N

ATOM	724	CA	LYS	A	110	93.061	1.363	4.779	1.00	44.16	C
ATOM	725	C	LYS	A	110	93.474	2.688	4.128	1.00	44.71	C
ATOM	726	O	LYS	A	110	94.231	3.472	4.711	1.00	44.66	O
ATOM	727	CB	LYS	A	110	93.522	0.188	3.908	1.00	43.41	C
ATOM	728	N	TYR	A	111	92.972	2.928	2.918	1.00	44.79	N
ATOM	729	CA	TYR	A	111	93.257	4.159	2.184	1.00	45.33	C
ATOM	730	C	TYR	A	111	92.041	5.041	2.440	1.00	45.58	C
ATOM	731	O	TYR	A	111	91.143	5.160	1.606	1.00	45.68	O
ATOM	732	CB	TYR	A	111	93.417	3.834	0.704	1.00	46.39	C
ATOM	733	CG	TYR	A	111	94.310	2.631	0.495	1.00	48.08	C
ATOM	734	CD1	TYR	A	111	95.651	2.659	0.881	1.00	48.44	C
ATOM	735	CD2	TYR	A	111	93.797	1.440	-0.016	1.00	48.53	C
ATOM	736	CE1	TYR	A	111	96.457	1.528	0.770	1.00	49.53	C
ATOM	737	CE2	TYR	A	111	94.591	0.303	-0.131	1.00	49.37	C
ATOM	738	CZ	TYR	A	111	95.920	0.351	0.266	1.00	50.10	C
ATOM	739	OH	TYR	A	111	96.695	-0.787	0.186	1.00	50.23	O
ATOM	740	N	THR	A	112	92.037	5.652	3.620	1.00	45.88	N
ATOM	741	CA	THR	A	112	90.937	6.477	4.112	1.00	45.92	C
ATOM	742	C	THR	A	112	90.372	7.631	3.291	1.00	46.09	C
ATOM	743	O	THR	A	112	89.499	8.354	3.783	1.00	46.15	O
ATOM	744	CB	THR	A	112	91.274	7.047	5.485	1.00	45.93	C
ATOM	745	OG1	THR	A	112	92.262	8.072	5.337	1.00	46.22	O
ATOM	746	CG2	THR	A	112	91.805	5.952	6.395	1.00	46.03	C
ATOM	747	N	SER	A	113	90.826	7.819	2.059	1.00	45.29	N
ATOM	748	CA	SER	A	113	90.295	8.924	1.270	1.00	44.93	C
ATOM	749	C	SER	A	113	89.594	8.456	0.006	1.00	43.95	C
ATOM	750	O	SER	A	113	88.935	9.245	-0.670	1.00	43.68	O
ATOM	751	CB	SER	A	113	91.417	9.870	0.869	1.00	46.51	C
ATOM	752	OG	SER	A	113	92.182	9.282	-0.168	1.00	48.39	O
ATOM	753	N	TRP	A	114	89.746	7.177	-0.319	1.00	42.46	N
ATOM	754	CA	TRP	A	114	89.140	6.628	-1.521	1.00	41.49	C
ATOM	755	C	TRP	A	114	87.816	5.892	-1.270	1.00	40.48	C
ATOM	756	O	TRP	A	114	87.626	5.255	-0.233	1.00	39.86	O
ATOM	757	CB	TRP	A	114	90.136	5.697	-2.227	1.00	41.54	C
ATOM	758	N	TYR	A	115	86.916	5.986	-2.246	1.00	39.44	N
ATOM	759	CA	TYR	A	115	85.598	5.364	-2.180	1.00	38.58	C
ATOM	760	C	TYR	A	115	85.381	4.306	-3.250	1.00	37.61	C
ATOM	761	O	TYR	A	115	85.971	4.359	-4.324	1.00	38.60	O
ATOM	762	CB	TYR	A	115	84.489	6.413	-2.377	1.00	39.18	C
ATOM	763	CG	TYR	A	115	84.357	7.433	-1.277	1.00	38.67	C
ATOM	764	CD1	TYR	A	115	85.127	8.597	-1.277	1.00	39.24	C
ATOM	765	CD2	TYR	A	115	83.477	7.223	-0.221	1.00	38.75	C
ATOM	766	CE1	TYR	A	115	85.022	9.532	-0.243	1.00	39.67	C
ATOM	767	CE2	TYR	A	115	83.362	8.143	0.818	1.00	39.61	C
ATOM	768	CZ	TYR	A	115	84.137	9.300	0.804	1.00	40.08	C
ATOM	769	OH	TYR	A	115	84.014	10.209	1.836	1.00	39.83	O
ATOM	770	N	VAL	A	116	84.514	3.349	-2.945	1.00	36.63	N
ATOM	771	CA	VAL	A	116	84.136	2.320	-3.899	1.00	35.26	C
ATOM	772	C	VAL	A	116	83.257	3.123	-4.847	1.00	36.10	C
ATOM	773	O	VAL	A	116	82.389	3.872	-4.394	1.00	36.77	O
ATOM	774	CB	VAL	A	116	83.267	1.221	-3.231	1.00	33.90	C
ATOM	775	CG1	VAL	A	116	82.773	0.220	-4.281	1.00	31.71	C
ATOM	776	CG2	VAL	A	116	84.068	0.515	-2.151	1.00	33.37	C
ATOM	777	N	ALA	A	117	83.463	2.980	-6.147	1.00	36.82	N
ATOM	778	CA	ALA	A	117	82.676	3.747	-7.096	1.00	37.68	C
ATOM	779	C	ALA	A	117	82.654	3.144	-8.486	1.00	38.75	C
ATOM	780	O	ALA	A	117	83.542	2.378	-8.866	1.00	38.92	O
ATOM	781	CB	ALA	A	117	83.212	5.180	-7.161	1.00	37.78	C
ATOM	782	N	LEU	A	118	81.621	3.496	-9.242	1.00	39.82	N
ATOM	783	CA	LEU	A	118	81.461	3.014	-10.606	1.00	40.49	C
ATOM	784	C	LEU	A	118	81.371	4.200	-11.551	1.00	41.61	C
ATOM	785	O	LEU	A	118	80.875	5.258	-11.166	1.00	42.32	O
ATOM	786	CB	LEU	A	118	80.200	2.167	-10.723	1.00	40.77	C
ATOM	787	CG	LEU	A	118	80.254	0.818	-10.000	1.00	42.07	C
ATOM	788	CD1	LEU	A	118	78.951	0.057	-10.239	1.00	41.45	C
ATOM	789	CD2	LEU	A	118	81.446	0.003	-10.516	1.00	41.56	C

Table 3

ATOM	790	N	LYS	A	119	81.858	4.022	-12.778	1.00	42.45	N
ATOM	791	CA	LYS	A	119	81.834	5.078	-13.788	1.00	43.49	C
ATOM	792	C	LYS	A	119	80.565	4.962	-14.622	1.00	44.00	C
ATOM	793	O	LYS	A	119	79.932	3.905	-14.655	1.00	44.67	O
ATOM	794	CB	LYS	A	119	83.063	4.968	-14.708	1.00	42.89	C
ATOM	795	N	ARG	A	120	80.203	6.049	-15.299	1.00	44.73	N
ATOM	796	CA	ARG	A	120	79.006	6.076	-16.135	1.00	45.11	C
ATOM	797	C	ARG	A	120	79.049	4.988	-17.199	1.00	45.13	C
ATOM	798	O	ARG	A	120	78.019	4.613	-17.761	1.00	45.32	O
ATOM	799	CB	ARG	A	120	78.860	7.450	-16.802	1.00	44.67	C
ATOM	800	N	THR	A	121	80.243	4.469	-17.455	1.00	46.00	N
ATOM	801	CA	THR	A	121	80.428	3.437	-18.466	1.00	46.87	C
ATOM	802	C	THR	A	121	80.083	2.048	-17.950	1.00	47.24	C
ATOM	803	O	THR	A	121	79.722	1.159	-18.720	1.00	47.43	O
ATOM	804	CB	THR	A	121	81.878	3.422	-18.956	1.00	47.67	C
ATOM	805	OG1	THR	A	121	82.719	2.880	-17.929	1.00	48.94	O
ATOM	806	CG2	THR	A	121	82.344	4.848	-19.287	1.00	47.63	C
ATOM	807	N	GLY	A	122	80.194	1.857	-16.643	1.00	48.13	N
ATOM	808	CA	GLY	A	122	79.900	0.554	-16.076	1.00	48.96	C
ATOM	809	C	GLY	A	122	81.164	-0.088	-15.537	1.00	49.43	C
ATOM	810	O	GLY	A	122	81.137	-1.182	-14.966	1.00	49.53	O
ATOM	811	N	GLN	A	123	82.285	0.594	-15.736	1.00	49.50	N
ATOM	812	CA	GLN	A	123	83.561	0.104	-15.246	1.00	49.94	C
ATOM	813	C	GLN	A	123	83.794	0.816	-13.918	1.00	49.63	C
ATOM	814	O	GLN	A	123	83.316	1.933	-13.721	1.00	49.09	O
ATOM	815	CB	GLN	A	123	84.675	0.432	-16.248	1.00	51.19	C
ATOM	816	CG	GLN	A	123	84.625	-0.387	-17.542	1.00	52.46	C
ATOM	817	CD	GLN	A	123	84.983	-1.856	-17.329	1.00	54.02	C
ATOM	818	OE1	GLN	A	123	86.025	-2.176	-16.742	1.00	54.84	O
ATOM	819	NE2	GLN	A	123	84.127	-2.755	-17.812	1.00	53.61	N
ATOM	820	N	TYR	A	124	84.508	0.174	-12.998	1.00	49.42	N
ATOM	821	CA	TYR	A	124	84.753	0.804	-11.709	1.00	49.47	C
ATOM	822	C	TYR	A	124	85.580	2.060	-11.910	1.00	48.95	C
ATOM	823	O	TYR	A	124	86.123	2.286	-12.988	1.00	48.14	O
ATOM	824	CB	TYR	A	124	85.463	-0.162	-10.749	1.00	51.35	C
ATOM	825	CG	TYR	A	124	86.908	-0.453	-11.080	1.00	52.93	C
ATOM	826	CD1	TYR	A	124	87.909	0.477	-10.798	1.00	53.68	C
ATOM	827	CD2	TYR	A	124	87.278	-1.664	-11.662	1.00	54.20	C
ATOM	828	CE1	TYR	A	124	89.241	0.211	-11.085	1.00	54.73	C
ATOM	829	CE2	TYR	A	124	88.612	-1.941	-11.954	1.00	55.22	C
ATOM	830	CZ	TYR	A	124	89.587	-0.998	-11.661	1.00	55.25	C
ATOM	831	OH	TYR	A	124	90.909	-1.263	-11.936	1.00	56.45	O
ATOM	832	N	LYS	A	125	85.667	2.875	-10.865	1.00	48.65	N
ATOM	833	CA	LYS	A	125	86.417	4.120	-10.914	1.00	49.19	C
ATOM	834	C	LYS	A	125	87.553	4.062	-9.898	1.00	49.55	C
ATOM	835	O	LYS	A	125	87.334	3.697	-8.740	1.00	49.81	O
ATOM	836	CB	LYS	A	125	85.483	5.295	-10.598	1.00	49.88	C
ATOM	837	CG	LYS	A	125	86.112	6.672	-10.754	1.00	50.85	C
ATOM	838	CD	LYS	A	125	85.061	7.782	-10.628	1.00	51.23	C
ATOM	839	CE	LYS	A	125	85.663	9.162	-10.862	1.00	51.49	C
ATOM	840	NZ	LYS	A	125	84.656	10.243	-10.685	1.00	51.35	N
ATOM	841	N	LEU	A	126	88.762	4.409	-10.331	1.00	49.75	N
ATOM	842	CA	LEU	A	126	89.926	4.381	-9.455	1.00	50.08	C
ATOM	843	C	LEU	A	126	89.642	5.119	-8.163	1.00	50.74	C
ATOM	844	O	LEU	A	126	89.212	6.271	-8.181	1.00	50.88	O
ATOM	845	CB	LEU	A	126	91.133	5.015	-10.150	1.00	50.72	C
ATOM	846	N	GLY	A	127	89.886	4.452	-7.042	1.00	51.26	N
ATOM	847	CA	GLY	A	127	89.647	5.074	-5.754	1.00	52.31	C
ATOM	848	C	GLY	A	127	90.309	6.432	-5.628	1.00	53.41	C
ATOM	849	O	GLY	A	127	89.778	7.332	-4.977	1.00	53.62	O
ATOM	850	N	SER	A	128	91.469	6.587	-6.258	1.00	54.05	N
ATOM	851	CA	SER	A	128	92.212	7.841	-6.196	1.00	54.57	C
ATOM	852	C	SER	A	128	91.509	9.002	-6.902	1.00	54.32	C
ATOM	853	O	SER	A	128	91.834	10.167	-6.670	1.00	54.14	O
ATOM	854	CB	SER	A	128	93.608	7.634	-6.786	1.00	55.37	C
ATOM	855	OG	SER	A	128	93.545	6.824	-7.945	1.00	57.14	O

Table 3

ATOM	856	N	LYS	A	129	90.538	8.682	-7.752	1.00	53.92	N
ATOM	857	CA	LYS	A	129	89.801	9.703	-8.489	1.00	53.25	C
ATOM	858	C	LYS	A	129	88.405	9.964	-7.909	1.00	52.55	C
ATOM	859	O	LYS	A	129	87.572	10.605	-8.552	1.00	52.29	O
ATOM	860	CB	LYS	A	129	89.680	9.283	-9.961	1.00	53.64	C
ATOM	861	N	THR	A	130	88.152	9.481	-6.695	1.00	51.39	N
ATOM	862	CA	THR	A	130	86.847	9.674	-6.072	1.00	50.01	C
ATOM	863	C	THR	A	130	86.860	10.805	-5.058	1.00	50.56	C
ATOM	864	O	THR	A	130	87.914	11.188	-4.546	1.00	51.07	O
ATOM	865	CB	THR	A	130	86.351	8.396	-5.361	1.00	48.77	C
ATOM	866	OG1	THR	A	130	87.193	8.114	-4.237	1.00	46.90	O
ATOM	867	CG2	THR	A	130	86.357	7.219	-6.315	1.00	46.34	C
ATOM	868	N	GLY	A	131	85.670	11.330	-4.775	1.00	50.61	N
ATOM	869	CA	GLY	A	131	85.526	12.424	-3.830	1.00	50.27	C
ATOM	870	C	GLY	A	131	84.149	12.386	-3.200	1.00	50.50	C
ATOM	871	O	GLY	A	131	83.225	11.829	-3.793	1.00	50.45	O
ATOM	872	N	PRO	A	132	83.973	12.987	-2.011	1.00	50.77	N
ATOM	873	CA	PRO	A	132	82.700	13.018	-1.282	1.00	51.13	C
ATOM	874	C	PRO	A	132	81.453	13.563	-1.979	1.00	51.41	C
ATOM	875	O	PRO	A	132	80.328	13.166	-1.638	1.00	52.28	O
ATOM	876	CB	PRO	A	132	83.048	13.790	-0.008	1.00	51.20	C
ATOM	877	CG	PRO	A	132	84.179	14.648	-0.419	1.00	51.10	C
ATOM	878	CD	PRO	A	132	85.006	13.725	-1.271	1.00	51.01	C
ATOM	879	N	GLY	A	133	81.629	14.445	-2.956	1.00	50.67	N
ATOM	880	CA	GLY	A	133	80.466	14.997	-3.626	1.00	49.53	C
ATOM	881	C	GLY	A	133	80.120	14.351	-4.952	1.00	49.10	C
ATOM	882	O	GLY	A	133	79.163	14.769	-5.608	1.00	49.41	O
ATOM	883	N	GLN	A	134	80.873	13.328	-5.350	1.00	48.03	N
ATOM	884	CA	GLN	A	134	80.631	12.665	-6.634	1.00	46.42	C
ATOM	885	C	GLN	A	134	79.401	11.764	-6.653	1.00	45.21	C
ATOM	886	O	GLN	A	134	78.978	11.236	-5.624	1.00	45.24	O
ATOM	887	CB	GLN	A	134	81.847	11.826	-7.069	1.00	46.96	C
ATOM	888	CG	GLN	A	134	83.204	12.511	-6.966	1.00	47.47	C
ATOM	889	CD	GLN	A	134	84.304	11.760	-7.722	1.00	48.07	C
ATOM	890	OE1	GLN	A	134	84.137	10.603	-8.111	1.00	47.30	O
ATOM	891	NE2	GLN	A	134	85.436	12.424	-7.925	1.00	48.32	N
ATOM	892	N	LYS	A	135	78.849	11.586	-7.848	1.00	43.48	N
ATOM	893	CA	LYS	A	135	77.683	10.736	-8.060	1.00	42.04	C
ATOM	894	C	LYS	A	135	78.104	9.262	-8.174	1.00	40.40	C
ATOM	895	O	LYS	A	135	77.295	8.355	-7.952	1.00	39.47	O
ATOM	896	CB	LYS	A	135	76.958	11.165	-9.339	1.00	42.66	C
ATOM	897	CG	LYS	A	135	75.740	10.333	-9.657	1.00	44.25	C
ATOM	898	CD	LYS	A	135	74.998	10.872	-10.872	1.00	46.61	C
ATOM	899	CE	LYS	A	135	73.761	10.029	-11.161	1.00	46.93	C
ATOM	900	NZ	LYS	A	135	72.944	10.547	-12.304	1.00	49.32	N
ATOM	901	N	ALA	A	136	79.373	9.040	-8.512	1.00	38.08	N
ATOM	902	CA	ALA	A	136	79.924	7.695	-8.678	1.00	36.96	C
ATOM	903	C	ALA	A	136	80.080	6.879	-7.381	1.00	34.83	C
ATOM	904	O	ALA	A	136	80.202	5.653	-7.438	1.00	35.66	O
ATOM	905	CB	ALA	A	136	81.275	7.781	-9.407	1.00	36.48	C
ATOM	906	N	ILE	A	137	80.070	7.546	-6.227	1.00	32.81	N
ATOM	907	CA	ILE	A	137	80.218	6.859	-4.945	1.00	31.45	C
ATOM	908	C	ILE	A	137	78.891	6.572	-4.214	1.00	30.17	C
ATOM	909	O	ILE	A	137	78.897	5.983	-3.130	1.00	28.56	O
ATOM	910	CB	ILE	A	137	81.117	7.675	-3.957	1.00	31.54	C
ATOM	911	CG1	ILE	A	137	80.335	8.871	-3.399	1.00	31.63	C
ATOM	912	CG2	ILE	A	137	82.378	8.184	-4.671	1.00	32.38	C
ATOM	913	CD1	ILE	A	137	81.052	9.626	-2.286	1.00	29.61	C
ATOM	914	N	LEU	A	138	77.765	6.983	-4.795	1.00	29.06	N
ATOM	915	CA	LEU	A	138	76.462	6.786	-4.139	1.00	28.39	C
ATOM	916	C	LEU	A	138	75.759	5.489	-4.504	1.00	27.29	C
ATOM	917	O	LEU	A	138	75.437	5.253	-5.667	1.00	26.85	O
ATOM	918	CB	LEU	A	138	75.535	7.969	-4.431	1.00	26.97	C
ATOM	919	CG	LEU	A	138	76.149	9.310	-4.017	1.00	28.21	C
ATOM	920	CD1	LEU	A	138	75.281	10.467	-4.525	1.00	27.23	C
ATOM	921	CD2	LEU	A	138	76.293	9.368	-2.497	1.00	27.43	C

Table 3

ATOM	922	N	PHE	A	139	75.516	4.655	-3.495	1.00	26.91	
ATOM	923	CA	PHE	A	139	74.851	3.368	-3.706	1.00	26.74	N
ATOM	924	C	PHE	A	139	73.584	3.210	-2.866	1.00	27.02	C
ATOM	925	O	PHE	A	139	73.475	3.730	-1.758	1.00	25.58	C
ATOM	926	CB	PHE	A	139	75.801	2.198	-3.383	1.00	27.16	O
ATOM	927	CG	PHE	A	139	76.989	2.089	-4.311	1.00	27.58	C
ATOM	928	CD1	PHE	A	139	78.119	2.893	-4.130	1.00	27.23	C
ATOM	929	CD2	PHE	A	139	76.973	1.179	-5.375	1.00	27.34	C
ATOM	930	CE1	PHE	A	139	79.228	2.786	-5.007	1.00	27.33	C
ATOM	931	CE2	PHE	A	139	78.064	1.066	-6.253	1.00	26.45	C
ATOM	932	CZ	PHE	A	139	79.192	1.868	-6.070	1.00	26.09	C
ATOM	933	N	LEU	A	140	72.638	2.450	-3.402	1.00	26.95	N
ATOM	934	CA	LEU	A	140	71.385	2.199	-2.723	1.00	27.05	C
ATOM	935	C	LEU	A	140	71.262	0.701	-2.504	1.00	27.88	C
ATOM	936	O	LEU	A	140	71.153	-0.058	-3.461	1.00	28.79	O
ATOM	937	CB	LEU	A	140	70.228	2.708	-3.591	1.00	26.81	C
ATOM	938	CG	LEU	A	140	68.802	2.552	-3.055	1.00	26.55	C
ATOM	939	CD1	LEU	A	140	68.691	3.334	-1.760	1.00	27.17	C
ATOM	940	CD2	LEU	A	140	67.784	3.057	-4.090	1.00	25.60	C
ATOM	941	N	PRO	A	141	71.287	0.246	-1.239	1.00	28.65	N
ATOM	942	CA	PRO	A	141	71.171	-1.201	-1.015	1.00	30.03	C
ATOM	943	C	PRO	A	141	69.762	-1.677	-1.358	1.00	30.80	C
ATOM	944	O	PRO	A	141	68.777	-1.062	-0.945	1.00	31.23	O
ATOM	945	CB	PRO	A	141	71.502	-1.341	0.472	1.00	29.16	C
ATOM	946	CG	PRO	A	141	70.894	-0.089	1.053	1.00	29.20	C
ATOM	947	CD	PRO	A	141	71.285	0.987	0.035	1.00	28.56	C
ATOM	948	N	MET	A	142	69.670	-2.758	-2.124	1.00	32.42	N
ATOM	949	CA	MET	A	142	68.378	-3.298	-2.531	1.00	34.31	C
ATOM	950	C	MET	A	142	68.296	-4.795	-2.277	1.00	35.79	C
ATOM	951	O	MET	A	142	69.318	-5.486	-2.227	1.00	36.15	O
ATOM	952	CB	MET	A	142	68.143	-3.025	-4.018	1.00	34.61	C
ATOM	953	CG	MET	A	142	68.149	-1.553	-4.402	1.00	33.78	C
ATOM	954	SD	MET	A	142	67.851	-1.331	-6.157	1.00	34.38	S
ATOM	955	CE	MET	A	142	66.113	-1.835	-6.255	1.00	34.37	C
ATOM	956	N	SER	A	143	67.075	-5.291	-2.132	1.00	37.37	N
ATOM	957	CA	SER	A	143	66.848	-6.707	-1.883	1.00	39.58	C
ATOM	958	C	SER	A	143	67.342	-7.591	-3.020	1.00	40.67	C
ATOM	959	O	SER	A	143	67.277	-7.215	-4.193	1.00	39.83	O
ATOM	960	CB	SER	A	143	65.360	-6.966	-1.652	1.00	39.84	C
ATOM	961	OG	SER	A	143	65.143	-8.328	-1.337	1.00	41.58	O
ATOM	962	N	ALA	A	144	67.842	-8.770	-2.662	1.00	42.94	N
ATOM	963	CA	ALA	A	144	68.327	-9.715	-3.659	1.00	45.52	C
ATOM	964	C	ALA	A	144	67.165	-10.596	-4.135	1.00	47.20	C
ATOM	965	O	ALA	A	144	67.364	-11.740	-4.528	1.00	48.00	O
ATOM	966	CB	ALA	A	144	69.453	-10.571	-3.083	1.00	44.42	C
ATOM	967	N	LYS	A	145	65.954	-10.037	-4.103	1.00	49.35	N
ATOM	968	CA	LYS	A	145	64.739	-10.732	-4.536	1.00	50.42	C
ATOM	969	C	LYS	A	145	64.599	-12.067	-3.830	1.00	51.05	C
ATOM	970	O	LYS	A	145	64.318	-12.015	-2.615	1.00	51.85	O
ATOM	971	CB	LYS	A	145	64.749	-10.954	-6.053	1.00	50.92	C
TER	972		LYS	A	145						
ATOM	973	N	HIS	B	16	29.691	59.874	-5.987	1.00	41.20	N
ATOM	974	CA	HIS	B	16	30.532	60.667	-6.938	1.00	40.87	C
ATOM	975	C	HIS	B	16	32.001	60.521	-6.563	1.00	39.74	C
ATOM	976	O	HIS	B	16	32.413	60.901	-5.467	1.00	39.06	O
ATOM	977	CB	HIS	B	16	30.131	62.149	-6.894	1.00	41.47	C
ATOM	978	N	PHE	B	17	32.783	59.981	-7.489	1.00	38.43	N
ATOM	979	CA	PHE	B	17	34.203	59.742	-7.270	1.00	37.73	C
ATOM	980	C	PHE	B	17	35.047	60.975	-6.928	1.00	37.15	C
ATOM	981	O	PHE	B	17	36.062	60.855	-6.240	1.00	36.85	O
ATOM	982	CB	PHE	B	17	34.784	59.027	-8.494	1.00	36.91	C
ATOM	983	CG	PHE	B	17	34.834	59.876	-9.724	1.00	35.74	C
ATOM	984	CD1	PHE	B	17	35.928	60.696	-9.969	1.00	35.10	C
ATOM	985	CD2	PHE	B	17	33.794	59.855	-10.646	1.00	35.94	C
ATOM	986	CE1	PHE	B	17	35.988	61.480	-11.112	1.00	35.16	C
ATOM	987	CE2	PHE	B	17	33.846	60.640	-11.800	1.00	36.07	C

Table 3

ATOM	988	CZ	PHE	B	17	34.944	61.453	-12.032	1.00	35.19	C
ATOM	989	N	LYS	B	18	34.641	62.154	-7.392	1.00	37.23	N
ATOM	990	CA	LYS	B	18	35.420	63.355	-7.092	1.00	38.08	C
ATOM	991	C	LYS	B	18	35.185	63.943	-5.698	1.00	38.08	C
ATOM	992	O	LYS	B	18	35.948	64.798	-5.244	1.00	38.20	O
ATOM	993	CB	LYS	B	18	35.231	64.432	-8.171	1.00	39.65	C
ATOM	994	CG	LYS	B	18	33.845	64.545	-8.774	1.00	42.73	C
ATOM	995	CD	LYS	B	18	33.890	65.478	-9.994	1.00	43.91	C
ATOM	996	CE	LYS	B	18	32.555	65.512	-10.725	1.00	44.63	C
ATOM	997	NZ	LYS	B	18	32.139	64.155	-11.160	1.00	46.27	N
ATOM	998	N	ASP	B	19	34.158	63.462	-5.007	1.00	37.77	N
ATOM	999	CA	ASP	B	19	33.864	63.942	-3.661	1.00	38.47	C
ATOM	1000	C	ASP	B	19	34.811	63.344	-2.620	1.00	38.55	C
ATOM	1001	O	ASP	B	19	35.267	62.202	-2.763	1.00	37.81	O
ATOM	1002	CB	ASP	B	19	32.431	63.580	-3.263	1.00	39.90	C
ATOM	1003	CG	ASP	B	19	31.384	64.268	-4.122	1.00	41.14	C
ATOM	1004	OD1	ASP	B	19	30.214	63.826	-4.091	1.00	41.72	O
ATOM	1005	OD2	ASP	B	19	31.724	65.253	-4.814	1.00	42.42	O
ATOM	1006	N	PRO	B	20	35.132	64.121	-1.566	1.00	38.54	N
ATOM	1007	CA	PRO	B	20	36.016	63.650	-0.497	1.00	38.26	C
ATOM	1008	C	PRO	B	20	35.346	62.480	0.226	1.00	37.93	C
ATOM	1009	O	PRO	B	20	34.129	62.302	0.135	1.00	37.55	O
ATOM	1010	CB	PRO	B	20	36.182	64.886	0.397	1.00	39.27	C
ATOM	1011	CG	PRO	B	20	34.945	65.690	0.133	1.00	39.95	C
ATOM	1012	CD	PRO	B	20	34.776	65.539	-1.361	1.00	39.71	C
ATOM	1013	N	LYS	B	21	36.128	61.684	0.945	1.00	37.56	N
ATOM	1014	CA	LYS	B	21	35.566	60.514	1.624	1.00	38.03	C
ATOM	1015	C	LYS	B	21	36.277	60.213	2.922	1.00	37.58	C
ATOM	1016	O	LYS	B	21	37.356	60.736	3.195	1.00	37.36	O
ATOM	1017	CB	LYS	B	21	35.718	59.232	0.773	1.00	38.55	C
ATOM	1018	CG	LYS	B	21	35.458	59.310	-0.726	1.00	40.40	C
ATOM	1019	CD	LYS	B	21	36.141	58.119	-1.403	1.00	42.66	C
ATOM	1020	CE	LYS	B	21	36.004	58.118	-2.931	1.00	45.28	C
ATOM	1021	NZ	LYS	B	21	34.693	57.570	-3.390	1.00	46.79	N
ATOM	1022	N	ARG	B	22	35.660	59.338	3.705	1.00	36.89	N
ATOM	1023	CA	ARG	B	22	36.254	58.875	4.942	1.00	36.76	C
ATOM	1024	C	ARG	B	22	36.607	57.442	4.575	1.00	35.99	C
ATOM	1025	O	ARG	B	22	35.878	56.812	3.807	1.00	36.59	O
ATOM	1026	CB	ARG	B	22	35.244	58.835	6.088	1.00	37.88	C
ATOM	1027	CG	ARG	B	22	34.503	60.125	6.396	1.00	40.72	C
ATOM	1028	CD	ARG	B	22	33.663	59.899	7.650	1.00	42.38	C
ATOM	1029	NE	ARG	B	22	32.359	60.562	7.626	1.00	45.73	N
ATOM	1030	CZ	ARG	B	22	32.137	61.830	7.961	1.00	46.48	C
ATOM	1031	NH1	ARG	B	22	33.137	62.608	8.355	1.00	48.50	N
ATOM	1032	NH2	ARG	B	22	30.904	62.320	7.909	1.00	47.02	N
ATOM	1033	N	LEU	B	23	37.725	56.938	5.085	1.00	34.47	N
ATOM	1034	CA	LEU	B	23	38.119	55.559	4.824	1.00	32.66	C
ATOM	1035	C	LEU	B	23	37.990	54.799	6.142	1.00	33.01	C
ATOM	1036	O	LEU	B	23	38.799	54.979	7.059	1.00	33.02	O
ATOM	1037	CB	LEU	B	23	39.557	55.479	4.311	1.00	31.69	C
ATOM	1038	CG	LEU	B	23	39.832	55.862	2.851	1.00	31.92	C
ATOM	1039	CD1	LEU	B	23	41.324	55.644	2.544	1.00	31.01	C
ATOM	1040	CD2	LEU	B	23	38.968	55.019	1.914	1.00	30.24	C
ATOM	1041	N	TYR	B	24	36.957	53.958	6.223	1.00	31.84	N
ATOM	1042	CA	TYR	B	24	36.651	53.158	7.408	1.00	30.77	C
ATOM	1043	C	TYR	B	24	37.390	51.815	7.406	1.00	30.86	C
ATOM	1044	O	TYR	B	24	37.290	51.042	6.457	1.00	30.57	O
ATOM	1045	CB	TYR	B	24	35.118	52.950	7.489	1.00	29.83	C
ATOM	1046	CG	TYR	B	24	34.605	51.982	8.548	1.00	28.06	C
ATOM	1047	CD1	TYR	B	24	34.689	50.601	8.359	1.00	29.06	C
ATOM	1048	CD2	TYR	B	24	34.010	52.447	9.728	1.00	27.71	C
ATOM	1049	CE1	TYR	B	24	34.191	49.701	9.314	1.00	28.51	C
ATOM	1050	CE2	TYR	B	24	33.509	51.559	10.691	1.00	27.43	C
ATOM	1051	CZ	TYR	B	24	33.601	50.184	10.475	1.00	29.33	C
ATOM	1052	OH	TYR	B	24	33.092	49.285	11.398	1.00	29.90	O
ATOM	1053	N	CYS	B	25	38.135	51.537	8.471	1.00	30.52	N

Table 3

ATOM	1054	CA	CYS	B	25	38.871	50.279	8.547	1.00	31.88	C
ATOM	1055	C	CYS	B	25	38.055	49.198	9.254	1.00	32.26	C
ATOM	1056	O	CYS	B	25	37.610	49.374	10.384	1.00	32.63	O
ATOM	1057	CB	CYS	B	25	40.216	50.459	9.272	1.00	30.70	C
ATOM	1058	SG	CYS	B	25	41.232	48.937	9.279	1.00	33.39	S
ATOM	1059	N	LYS	B	26	37.859	48.077	8.571	1.00	34.00	N
ATOM	1060	CA	LYS	B	26	37.091	46.978	9.135	1.00	35.65	C
ATOM	1061	C	LYS	B	26	37.692	46.542	10.477	1.00	36.77	C
ATOM	1062	O	LYS	B	26	36.969	46.136	11.383	1.00	36.34	O
ATOM	1063	CB	LYS	B	26	37.069	45.794	8.168	1.00	35.74	C
ATOM	1064	CG	LYS	B	26	36.256	44.622	8.690	1.00	37.36	C
ATOM	1065	CD	LYS	B	26	36.371	43.407	7.796	1.00	38.54	C
ATOM	1066	CE	LYS	B	26	35.480	42.287	8.311	1.00	40.15	C
ATOM	1067	NZ	LYS	B	26	35.677	41.049	7.509	1.00	41.23	N
ATOM	1068	N	ASN	B	27	39.014	46.636	10.602	1.00	37.35	N
ATOM	1069	CA	ASN	B	27	39.681	46.250	11.843	1.00	37.78	C
ATOM	1070	C	ASN	B	27	39.415	47.295	12.930	1.00	37.79	C
ATOM	1071	O	ASN	B	27	39.999	48.383	12.927	1.00	38.21	O
ATOM	1072	CB	ASN	B	27	41.187	46.103	11.617	1.00	39.72	C
ATOM	1073	CG	ASN	B	27	41.887	45.400	12.773	1.00	43.31	C
ATOM	1074	OD1	ASN	B	27	43.125	45.404	12.872	1.00	43.49	O
ATOM	1075	ND2	ASN	B	27	41.100	44.782	13.648	1.00	43.66	N
ATOM	1076	N	GLY	B	28	38.511	46.971	13.847	1.00	36.80	N
ATOM	1077	CA	GLY	B	28	38.188	47.883	14.926	1.00	36.61	C
ATOM	1078	C	GLY	B	28	37.208	48.999	14.605	1.00	36.56	C
ATOM	1079	O	GLY	B	28	36.657	49.622	15.511	1.00	36.62	O
ATOM	1080	N	GLY	B	29	36.992	49.272	13.324	1.00	37.24	N
ATOM	1081	CA	GLY	B	29	36.057	50.322	12.956	1.00	37.20	C
ATOM	1082	C	GLY	B	29	36.577	51.741	13.129	1.00	37.22	C
ATOM	1083	O	GLY	B	29	35.836	52.630	13.548	1.00	37.21	O
ATOM	1084	N	PHE	B	30	37.848	51.957	12.807	1.00	37.85	N
ATOM	1085	CA	PHE	B	30	38.458	53.288	12.919	1.00	38.68	C
ATOM	1086	C	PHE	B	30	38.508	53.977	11.559	1.00	38.10	C
ATOM	1087	O	PHE	B	30	38.687	53.325	10.536	1.00	38.20	O
ATOM	1088	CB	PHE	B	30	39.905	53.201	13.426	1.00	38.81	C
ATOM	1089	CG	PHE	B	30	40.049	52.642	14.812	1.00	39.31	C
ATOM	1090	CD1	PHE	B	30	40.339	51.294	15.005	1.00	38.57	C
ATOM	1091	CD2	PHE	B	30	39.932	53.473	15.923	1.00	38.57	C
ATOM	1092	CE1	PHE	B	30	40.514	50.779	16.285	1.00	39.12	C
ATOM	1093	CE2	PHE	B	30	40.105	52.972	17.211	1.00	38.92	C
ATOM	1094	CZ	PHE	B	30	40.397	51.621	17.396	1.00	38.67	C
ATOM	1095	N	PHE	B	31	38.365	55.295	11.559	1.00	38.30	N
ATOM	1096	CA	PHE	B	31	38.446	56.074	10.331	1.00	38.10	C
ATOM	1097	C	PHE	B	31	39.883	56.547	10.186	1.00	38.64	C
ATOM	1098	O	PHE	B	31	40.445	57.103	11.134	1.00	38.89	O
ATOM	1099	CB	PHE	B	31	37.531	57.280	10.421	1.00	37.10	C
ATOM	1100	CG	PHE	B	31	36.095	56.938	10.295	1.00	36.88	C
ATOM	1101	CD1	PHE	B	31	35.551	56.637	9.047	1.00	34.97	C
ATOM	1102	CD2	PHE	B	31	35.285	56.873	11.419	1.00	36.08	C
ATOM	1103	CE1	PHE	B	31	34.217	56.277	8.928	1.00	35.59	C
ATOM	1104	CE2	PHE	B	31	33.942	56.510	11.306	1.00	37.12	C
ATOM	1105	CZ	PHE	B	31	33.410	56.211	10.055	1.00	34.95	C
ATOM	1106	N	LEU	B	32	40.485	56.323	9.020	1.00	38.61	N
ATOM	1107	CA	LEU	B	32	41.870	56.749	8.791	1.00	38.97	C
ATOM	1108	C	LEU	B	32	41.958	58.253	9.036	1.00	39.72	C
ATOM	1109	O	LEU	B	32	41.170	59.023	8.482	1.00	39.68	O
ATOM	1110	CB	LEU	B	32	42.307	56.424	7.356	1.00	38.43	C
ATOM	1111	CG	LEU	B	32	43.787	56.609	6.994	1.00	38.14	C
ATOM	1112	CD1	LEU	B	32	44.664	55.726	7.877	1.00	37.20	C
ATOM	1113	CD2	LEU	B	32	44.004	56.257	5.530	1.00	37.43	C
ATOM	1114	N	ARG	B	33	42.910	58.672	9.870	1.00	40.78	N
ATOM	1115	CA	ARG	B	33	43.067	60.094	10.197	1.00	41.49	C
ATOM	1116	C	ARG	B	33	44.449	60.658	9.872	1.00	41.79	C
ATOM	1117	O	ARG	B	33	45.470	60.040	10.165	1.00	41.69	O
ATOM	1118	CB	ARG	B	33	42.753	60.316	11.683	1.00	41.87	C
ATOM	1119	CG	ARG	B	33	42.997	61.734	12.173	1.00	42.16	C

Table 3

ATOM	1120	CD	ARG	B	33	42.468	61.952	13.587	1.00	41.66	C
ATOM	1121	NE	ARG	B	33	43.170	61.161	14.597	1.00	42.10	N
ATOM	1122	CZ	ARG	B	33	42.870	61.180	15.897	1.00	41.89	C
ATOM	1123	NH1	ARG	B	33	41.884	61.947	16.341	1.00	39.60	N
ATOM	1124	NH2	ARG	B	33	43.557	60.434	16.759	1.00	40.90	N
ATOM	1125	N	ILE	B	34	44.474	61.836	9.258	1.00	43.37	N
ATOM	1126	CA	ILE	B	34	45.733	62.497	8.904	1.00	44.60	C
ATOM	1127	C	ILE	B	34	45.829	63.834	9.632	1.00	45.66	C
ATOM	1128	O	ILE	B	34	45.142	64.793	9.290	1.00	45.68	O
ATOM	1129	CB	ILE	B	34	45.859	62.710	7.362	1.00	44.79	C
ATOM	1130	CG1	ILE	B	34	46.101	61.357	6.680	1.00	44.68	C
ATOM	1131	CG2	ILE	B	34	47.006	63.679	7.035	1.00	43.70	C
ATOM	1132	CD1	ILE	B	34	46.242	61.429	5.182	1.00	45.23	C
ATOM	1133	N	HIS	B	35	46.683	63.865	10.654	1.00	47.90	N
ATOM	1134	CA	HIS	B	35	46.910	65.050	11.488	1.00	49.69	C
ATOM	1135	C	HIS	B	35	47.663	66.169	10.779	1.00	50.18	C
ATOM	1136	O	HIS	B	35	48.477	65.917	9.885	1.00	49.89	O
ATOM	1137	CB	HIS	B	35	47.708	64.667	12.733	1.00	50.95	C
ATOM	1138	CG	HIS	B	35	46.961	63.794	13.687	1.00	52.79	C
ATOM	1139	ND1	HIS	B	35	45.939	64.266	14.483	1.00	53.73	N
ATOM	1140	CD2	HIS	B	35	47.094	62.480	13.982	1.00	53.11	C
ATOM	1141	CE1	HIS	B	35	45.476	63.280	15.230	1.00	54.07	C
ATOM	1142	NE2	HIS	B	35	46.160	62.186	14.945	1.00	54.33	N
ATOM	1143	N	PRO	B	36	47.421	67.424	11.197	1.00	50.94	N
ATOM	1144	CA	PRO	B	36	48.080	68.588	10.601	1.00	51.39	C
ATOM	1145	C	PRO	B	36	49.603	68.500	10.634	1.00	51.71	C
ATOM	1146	O	PRO	B	36	50.266	68.999	9.729	1.00	51.94	O
ATOM	1147	CB	PRO	B	36	47.541	69.748	11.430	1.00	51.36	C
ATOM	1148	CG	PRO	B	36	46.158	69.284	11.773	1.00	51.50	C
ATOM	1149	CD	PRO	B	36	46.408	67.851	12.181	1.00	50.68	C
ATOM	1150	N	ASP	B	37	50.155	67.863	11.666	1.00	52.35	N
ATOM	1151	CA	ASP	B	37	51.607	67.736	11.767	1.00	53.06	C
ATOM	1152	C	ASP	B	37	52.169	66.505	11.064	1.00	52.67	C
ATOM	1153	O	ASP	B	37	53.354	66.194	11.192	1.00	52.98	O
ATOM	1154	CB	ASP	B	37	52.071	67.776	13.236	1.00	54.79	C
ATOM	1155	CG	ASP	B	37	51.464	66.676	14.086	1.00	56.33	C
ATOM	1156	OD1	ASP	B	37	50.224	66.656	14.243	1.00	56.83	O
ATOM	1157	OD2	ASP	B	37	52.236	65.837	14.607	1.00	57.53	O
ATOM	1158	N	GLY	B	38	51.318	65.804	10.318	1.00	52.01	N
ATOM	1159	CA	GLY	B	38	51.781	64.642	9.579	1.00	50.97	C
ATOM	1160	C	GLY	B	38	51.694	63.265	10.214	1.00	50.53	C
ATOM	1161	O	GLY	B	38	52.146	62.289	9.610	1.00	50.78	O
ATOM	1162	N	ARG	B	39	51.130	63.162	11.414	1.00	49.98	N
ATOM	1163	CA	ARG	B	39	51.006	61.857	12.069	1.00	50.01	C
ATOM	1164	C	ARG	B	39	49.785	61.117	11.513	1.00	48.98	C
ATOM	1165	O	ARG	B	39	48.775	61.743	11.176	1.00	48.74	O
ATOM	1166	CB	ARG	B	39	50.866	62.023	13.592	1.00	51.16	C
ATOM	1167	CG	ARG	B	39	52.179	62.313	14.318	1.00	53.76	C
ATOM	1168	CD	ARG	B	39	51.976	62.563	15.817	1.00	55.43	C
ATOM	1169	NE	ARG	B	39	51.143	63.738	16.080	1.00	57.14	N
ATOM	1170	CZ	ARG	B	39	49.822	63.706	16.244	1.00	57.89	C
ATOM	1171	NH1	ARG	B	39	49.150	64.831	16.470	1.00	57.92	N
ATOM	1172	NH2	ARG	B	39	49.172	62.549	16.201	1.00	58.81	N
ATOM	1173	N	VAL	B	40	49.879	59.793	11.423	1.00	47.61	N
ATOM	1174	CA	VAL	B	40	48.777	58.994	10.897	1.00	46.88	C
ATOM	1175	C	VAL	B	40	48.288	57.919	11.871	1.00	46.13	C
ATOM	1176	O	VAL	B	40	49.074	57.114	12.370	1.00	45.77	O
ATOM	1177	CB	VAL	B	40	49.176	58.321	9.550	1.00	46.91	C
ATOM	1178	CG1	VAL	B	40	48.069	57.355	9.077	1.00	46.28	C
ATOM	1179	CG2	VAL	B	40	49.421	59.399	8.493	1.00	45.41	C
ATOM	1180	N	ASP	B	41	46.983	57.923	12.132	1.00	45.81	N
ATOM	1181	CA	ASP	B	41	46.360	56.946	13.025	1.00	45.94	C
ATOM	1182	C	ASP	B	41	44.877	56.811	12.679	1.00	45.67	C
ATOM	1183	O	ASP	B	41	44.429	57.306	11.642	1.00	45.16	O
ATOM	1184	CB	ASP	B	41	46.515	57.376	14.490	1.00	45.68	C
ATOM	1185	CG	ASP	B	41	45.744	58.641	14.815	1.00	46.42	C

Table 3

ATOM	1186	OD1	ASP	B	41	45.810	59.094	15.981	1.00	47.24	O
ATOM	1187	OD2	ASP	B	41	45.073	59.188	13.916	1.00	46.74	O
ATOM	1188	N	GLY	B	42	44.128	56.143	13.553	1.00	45.79	N
ATOM	1189	CA	GLY	B	42	42.707	55.956	13.333	1.00	45.89	C
ATOM	1190	C	GLY	B	42	41.901	56.424	14.527	1.00	46.60	C
ATOM	1191	O	GLY	B	42	42.416	56.488	15.644	1.00	46.61	O
ATOM	1192	N	VAL	B	43	40.643	56.774	14.286	1.00	47.12	N
ATOM	1193	CA	VAL	B	43	39.735	57.224	15.336	1.00	47.40	C
ATOM	1194	C	VAL	B	43	38.317	56.844	14.975	1.00	48.03	C
ATOM	1195	O	VAL	B	43	37.985	56.718	13.795	1.00	48.35	O
ATOM	1196	CB	VAL	B	43	39.767	58.745	15.542	1.00	47.09	C
ATOM	1197	CG1	VAL	B	43	40.850	59.099	16.524	1.00	47.34	C
ATOM	1198	CG2	VAL	B	43	39.976	59.452	14.219	1.00	45.89	C
ATOM	1199	N	ARG	B	44	37.480	56.684	15.991	1.00	48.67	N
ATOM	1200	CA	ARG	B	44	36.099	56.291	15.776	1.00	49.72	C
ATOM	1201	C	ARG	B	44	35.109	57.447	15.655	1.00	50.61	C
ATOM	1202	O	ARG	B	44	34.020	57.274	15.110	1.00	50.99	O
ATOM	1203	CB	ARG	B	44	35.671	55.316	16.879	1.00	49.25	C
ATOM	1204	CG	ARG	B	44	36.431	53.989	16.811	1.00	49.05	C
ATOM	1205	CD	ARG	B	44	36.035	53.017	17.909	1.00	48.64	C
ATOM	1206	NE	ARG	B	44	36.670	51.714	17.715	1.00	49.15	N
ATOM	1207	CZ	ARG	B	44	37.108	50.942	18.706	1.00	49.17	C
ATOM	1208	NH1	ARG	B	44	36.982	51.347	19.965	1.00	49.60	N
ATOM	1209	NH2	ARG	B	44	37.671	49.768	18.443	1.00	48.11	N
ATOM	1210	N	GLU	B	45	35.487	58.628	16.129	1.00	51.32	N
ATOM	1211	CA	GLU	B	45	34.590	59.770	16.061	1.00	52.99	C
ATOM	1212	C	GLU	B	45	34.382	60.301	14.639	1.00	53.72	C
ATOM	1213	O	GLU	B	45	35.247	60.970	14.067	1.00	53.64	O
ATOM	1214	CB	GLU	B	45	35.094	60.885	16.981	1.00	54.62	C
ATOM	1215	CG	GLU	B	45	34.103	62.022	17.153	1.00	56.11	C
ATOM	1216	CD	GLU	B	45	32.668	61.533	17.166	1.00	57.20	C
ATOM	1217	OE1	GLU	B	45	32.367	60.568	17.904	1.00	58.01	O
ATOM	1218	OE2	GLU	B	45	31.838	62.115	16.436	1.00	57.95	O
ATOM	1219	N	LYS	B	46	33.212	60.001	14.081	1.00	53.86	N
ATOM	1220	CA	LYS	B	46	32.863	60.425	12.732	1.00	54.06	C
ATOM	1221	C	LYS	B	46	32.912	61.941	12.542	1.00	54.13	C
ATOM	1222	O	LYS	B	46	32.890	62.429	11.411	1.00	54.29	O
ATOM	1223	CB	LYS	B	46	31.465	59.911	12.377	1.00	53.90	C
ATOM	1224	N	SER	B	47	32.993	62.682	13.641	1.00	54.05	N
ATOM	1225	CA	SER	B	47	33.013	64.142	13.573	1.00	54.44	C
ATOM	1226	C	SER	B	47	34.403	64.755	13.425	1.00	54.13	C
ATOM	1227	O	SER	B	47	34.536	65.932	13.092	1.00	54.74	O
ATOM	1228	CB	SER	B	47	32.328	64.728	14.811	1.00	55.19	C
ATOM	1229	OG	SER	B	47	32.215	66.138	14.708	1.00	57.49	O
ATOM	1230	N	ASP	B	48	35.438	63.964	13.668	1.00	53.76	N
ATOM	1231	CA	ASP	B	48	36.802	64.460	13.560	1.00	53.29	C
ATOM	1232	C	ASP	B	48	37.058	65.080	12.186	1.00	52.62	C
ATOM	1233	O	ASP	B	48	36.837	64.444	11.157	1.00	52.61	O
ATOM	1234	CB	ASP	B	48	37.790	63.320	13.832	1.00	54.05	C
ATOM	1235	CG	ASP	B	48	39.219	63.808	13.965	1.00	55.08	C
ATOM	1236	OD1	ASP	B	48	39.994	63.167	14.711	1.00	55.65	O
ATOM	1237	OD2	ASP	B	48	39.569	64.825	13.324	1.00	54.58	O
ATOM	1238	N	PRO	B	49	37.526	66.340	12.158	1.00	52.10	N
ATOM	1239	CA	PRO	B	49	37.813	67.060	10.910	1.00	50.74	C
ATOM	1240	C	PRO	B	49	39.037	66.568	10.134	1.00	49.71	C
ATOM	1241	O	PRO	B	49	39.256	66.979	8.997	1.00	50.41	O
ATOM	1242	CB	PRO	B	49	37.962	68.504	11.378	1.00	51.63	C
ATOM	1243	CG	PRO	B	49	38.574	68.337	12.738	1.00	51.61	C
ATOM	1244	CD	PRO	B	49	37.745	67.216	13.325	1.00	52.05	C
ATOM	1245	N	HIS	B	50	39.825	65.685	10.737	1.00	48.05	N
ATOM	1246	CA	HIS	B	50	41.026	65.163	10.088	1.00	46.32	C
ATOM	1247	C	HIS	B	50	40.866	63.790	9.411	1.00	44.99	C
ATOM	1248	O	HIS	B	50	41.856	63.141	9.085	1.00	44.20	O
ATOM	1249	CB	HIS	B	50	42.173	65.102	11.104	1.00	46.22	C
ATOM	1250	N	ILE	B	51	39.628	63.344	9.209	1.00	43.86	N
ATOM	1251	CA	ILE	B	51	39.394	62.066	8.544	1.00	42.57	C

Table 3

ATOM	1252	C	ILE	B	51	38.772	62.280	7.163	1.00	41.66	C
ATOM	1253	O	ILE	B	51	38.504	61.316	6.441	1.00	40.77	O
ATOM	1254	CB	ILE	B	51	38.477	61.141	9.371	1.00	42.29	C
ATOM	1255	CG1	ILE	B	51	37.116	61.801	9.584	1.00	42.59	C
ATOM	1256	CG2	ILE	B	51	39.148	60.807	10.695	1.00	42.29	C
ATOM	1257	CD1	ILE	B	51	36.040	60.839	10.067	1.00	44.12	C
ATOM	1258	N	LYS	B	52	38.536	63.542	6.804	1.00	40.51	N
ATOM	1259	CA	LYS	B	52	37.975	63.871	5.496	1.00	39.40	C
ATOM	1260	C	LYS	B	52	39.143	63.807	4.521	1.00	38.70	C
ATOM	1261	O	LYS	B	52	40.060	64.632	4.582	1.00	39.00	O
ATOM	1262	CB	LYS	B	52	37.360	65.276	5.492	1.00	38.94	C
ATOM	1263	N	LEU	B	53	39.107	62.824	3.622	1.00	36.69	N
ATOM	1264	CA	LEU	B	53	40.179	62.627	2.657	1.00	34.75	C
ATOM	1265	C	LEU	B	53	39.783	62.879	1.209	1.00	34.22	C
ATOM	1266	O	LEU	B	53	38.610	62.835	0.852	1.00	36.06	O
ATOM	1267	CB	LEU	B	53	40.710	61.203	2.775	1.00	34.22	C
ATOM	1268	CG	LEU	B	53	41.174	60.750	4.153	1.00	33.71	C
ATOM	1269	CD1	LEU	B	53	41.431	59.259	4.133	1.00	33.62	C
ATOM	1270	CD2	LEU	B	53	42.430	61.507	4.533	1.00	34.34	C
ATOM	1271	N	GLN	B	54	40.778	63.127	0.370	1.00	32.84	N
ATOM	1272	CA	GLN	B	54	40.533	63.363	-1.044	1.00	31.93	C
ATOM	1273	C	GLN	B	54	41.373	62.404	-1.865	1.00	31.30	C
ATOM	1274	O	GLN	B	54	42.598	62.530	-1.886	1.00	30.03	O
ATOM	1275	CB	GLN	B	54	40.916	64.793	-1.439	1.00	32.97	C
ATOM	1276	CG	GLN	B	54	40.549	65.155	-2.877	1.00	33.02	C
ATOM	1277	CD	GLN	B	54	39.042	65.222	-3.080	1.00	34.77	C
ATOM	1278	OE1	GLN	B	54	38.352	66.036	-2.455	1.00	35.07	O
ATOM	1279	NE2	GLN	B	54	38.522	64.362	-3.946	1.00	34.98	N
ATOM	1280	N	LEU	B	55	40.729	61.446	-2.533	1.00	30.73	N
ATOM	1281	CA	LEU	B	55	41.475	60.498	-3.375	1.00	31.57	C
ATOM	1282	C	LEU	B	55	41.591	61.069	-4.786	1.00	30.56	C
ATOM	1283	O	LEU	B	55	40.724	61.818	-5.234	1.00	30.71	O
ATOM	1284	CB	LEU	B	55	40.783	59.127	-3.430	1.00	32.23	C
ATOM	1285	CG	LEU	B	55	40.429	58.411	-2.113	1.00	35.23	C
ATOM	1286	CD1	LEU	B	55	40.135	56.946	-2.398	1.00	34.62	C
ATOM	1287	CD2	LEU	B	55	41.576	58.513	-1.118	1.00	34.97	C
ATOM	1288	N	GLN	B	56	42.666	60.721	-5.482	1.00	30.02	N
ATOM	1289	CA	GLN	B	56	42.886	61.211	-6.837	1.00	29.32	C
ATOM	1290	C	GLN	B	56	43.742	60.202	-7.575	1.00	29.63	C
ATOM	1291	O	GLN	B	56	44.809	59.829	-7.094	1.00	29.46	O
ATOM	1292	CB	GLN	B	56	43.597	62.579	-6.789	1.00	29.41	C
ATOM	1293	CG	GLN	B	56	43.917	63.203	-8.146	1.00	29.62	C
ATOM	1294	CD	GLN	B	56	42.684	63.475	-8.982	1.00	28.94	C
ATOM	1295	OE1	GLN	B	56	41.830	64.275	-8.611	1.00	29.99	O
ATOM	1296	NE2	GLN	B	56	42.583	62.799	-10.122	1.00	30.33	N
ATOM	1297	N	ALA	B	57	43.272	59.749	-8.733	1.00	29.97	N
ATOM	1298	CA	ALA	B	57	44.016	58.779	-9.534	1.00	30.63	C
ATOM	1299	C	ALA	B	57	45.177	59.458	-10.267	1.00	31.45	C
ATOM	1300	O	ALA	B	57	45.013	60.545	-10.821	1.00	31.11	O
ATOM	1301	CB	ALA	B	57	43.082	58.116	-10.545	1.00	29.39	C
ATOM	1302	N	GLU	B	58	46.342	58.816	-10.262	1.00	32.00	N
ATOM	1303	CA	GLU	B	58	47.521	59.361	-10.935	1.00	32.70	C
ATOM	1304	C	GLU	B	58	47.660	58.627	-12.267	1.00	33.16	C
ATOM	1305	O	GLU	B	58	48.173	59.169	-13.249	1.00	32.46	O
ATOM	1306	CB	GLU	B	58	48.769	59.141	-10.075	1.00	34.03	C
ATOM	1307	CG	GLU	B	58	49.957	60.027	-10.445	1.00	35.07	C
ATOM	1308	CD	GLU	B	58	49.636	61.517	-10.331	1.00	36.28	C
ATOM	1309	OE1	GLU	B	58	48.984	61.930	-9.346	1.00	36.31	O
ATOM	1310	OE2	GLU	B	58	50.041	62.280	-11.231	1.00	38.59	O
ATOM	1311	N	GLU	B	59	47.221	57.372	-12.264	1.00	33.20	N
ATOM	1312	CA	GLU	B	59	47.200	56.526	-13.450	1.00	34.42	C
ATOM	1313	C	GLU	B	59	46.210	55.405	-13.136	1.00	33.04	C
ATOM	1314	O	GLU	B	59	45.739	55.293	-12.004	1.00	32.98	O
ATOM	1315	CB	GLU	B	59	48.591	55.983	-13.806	1.00	36.51	C
ATOM	1316	CG	GLU	B	59	49.109	54.811	-12.999	1.00	40.45	C
ATOM	1317	CD	GLU	B	59	50.435	54.299	-13.555	1.00	42.69	C

Table 3

ATOM	1318	OE1	GLU	B	59	51.397	55.097	-13.619	1.00	44.62	O
ATOM	1319	OE2	GLU	B	59	50.519	53.112	-13.939	1.00	43.75	O
ATOM	1320	N	ARG	B	60	45.878	54.599	-14.133	1.00	32.15	N
ATOM	1321	CA	ARG	B	60	44.906	53.534	-13.955	1.00	32.04	C
ATOM	1322	C	ARG	B	60	45.142	52.685	-12.703	1.00	30.69	C
ATOM	1323	O	ARG	B	60	46.201	52.078	-12.546	1.00	30.48	O
ATOM	1324	CB	ARG	B	60	44.896	52.664	-15.217	1.00	33.28	C
ATOM	1325	CG	ARG	B	60	43.791	51.648	-15.275	1.00	35.74	C
ATOM	1326	CD	ARG	B	60	43.852	50.864	-16.568	1.00	37.31	C
ATOM	1327	NE	ARG	B	60	43.209	49.579	-16.370	1.00	41.07	N
ATOM	1328	CZ	ARG	B	60	43.776	48.408	-16.628	1.00	42.59	C
ATOM	1329	NH1	ARG	B	60	45.010	48.349	-17.113	1.00	42.37	N
ATOM	1330	NH2	ARG	B	60	43.113	47.292	-16.359	1.00	44.09	N
ATOM	1331	N	GLY	B	61	44.160	52.670	-11.802	1.00	29.44	N
ATOM	1332	CA	GLY	B	61	44.270	51.867	-10.594	1.00	28.64	C
ATOM	1333	C	GLY	B	61	45.239	52.336	-9.518	1.00	28.44	C
ATOM	1334	O	GLY	B	61	45.447	51.631	-8.518	1.00	28.45	O
ATOM	1335	N	VAL	B	62	45.837	53.510	-9.705	1.00	27.68	N
ATOM	1336	CA	VAL	B	62	46.772	54.041	-8.716	1.00	27.03	C
ATOM	1337	C	VAL	B	62	46.289	55.398	-8.188	1.00	26.84	C
ATOM	1338	O	VAL	B	62	45.970	56.298	-8.961	1.00	27.29	O
ATOM	1339	CB	VAL	B	62	48.183	54.198	-9.320	1.00	27.60	C
ATOM	1340	CG1	VAL	B	62	49.179	54.609	-8.220	1.00	27.44	C
ATOM	1341	CG2	VAL	B	62	48.617	52.884	-9.993	1.00	27.44	C
ATOM	1342	N	VAL	B	63	46.244	55.555	-6.870	1.00	26.76	N
ATOM	1343	CA	VAL	B	63	45.775	56.816	-6.296	1.00	26.49	C
ATOM	1344	C	VAL	B	63	46.693	57.419	-5.240	1.00	27.04	C
ATOM	1345	O	VAL	B	63	47.592	56.750	-4.717	1.00	26.79	O
ATOM	1346	CB	VAL	B	63	44.386	56.666	-5.614	1.00	25.62	C
ATOM	1347	CG1	VAL	B	63	43.406	55.941	-6.535	1.00	25.75	C
ATOM	1348	CG2	VAL	B	63	44.540	55.920	-4.290	1.00	24.62	C
ATOM	1349	N	SER	B	64	46.444	58.693	-4.942	1.00	26.91	N
ATOM	1350	CA	SER	B	64	47.163	59.413	-3.896	1.00	27.65	C
ATOM	1351	C	SER	B	64	46.028	59.740	-2.922	1.00	27.63	C
ATOM	1352	O	SER	B	64	44.887	59.936	-3.341	1.00	27.72	O
ATOM	1353	CB	SER	B	64	47.819	60.706	-4.431	1.00	27.51	C
ATOM	1354	OG	SER	B	64	46.879	61.733	-4.711	1.00	26.28	O
ATOM	1355	N	ILE	B	65	46.328	59.758	-1.631	1.00	27.50	N
ATOM	1356	CA	ILE	B	65	45.324	60.045	-0.613	1.00	29.11	C
ATOM	1357	C	ILE	B	65	45.742	61.299	0.182	1.00	30.87	C
ATOM	1358	O	ILE	B	65	46.764	61.293	0.872	1.00	29.58	O
ATOM	1359	CB	ILE	B	65	45.186	58.844	0.348	1.00	28.40	C
ATOM	1360	CG1	ILE	B	65	44.783	57.594	-0.436	1.00	28.74	C
ATOM	1361	CG2	ILE	B	65	44.151	59.146	1.414	1.00	29.28	C
ATOM	1362	CD1	ILE	B	65	44.989	56.288	0.328	1.00	29.28	C
ATOM	1363	N	LYS	B	66	44.942	62.359	0.096	1.00	32.12	N
ATOM	1364	CA	LYS	B	66	45.261	63.615	0.764	1.00	34.36	C
ATOM	1365	C	LYS	B	66	44.308	64.046	1.881	1.00	35.58	C
ATOM	1366	O	LYS	B	66	43.091	64.094	1.693	1.00	35.20	O
ATOM	1367	CB	LYS	B	66	45.346	64.742	-0.285	1.00	35.36	C
ATOM	1368	CG	LYS	B	66	45.677	66.133	0.280	1.00	35.59	C
ATOM	1369	CD	LYS	B	66	45.638	67.209	-0.796	1.00	36.13	C
ATOM	1370	CE	LYS	B	66	46.129	68.554	-0.264	1.00	38.60	C
ATOM	1371	NZ	LYS	B	66	46.176	69.640	-1.304	1.00	37.62	N
ATOM	1372	N	GLY	B	67	44.871	64.365	3.046	1.00	37.05	N
ATOM	1373	CA	GLY	B	67	44.056	64.837	4.155	1.00	38.88	C
ATOM	1374	C	GLY	B	67	43.676	66.283	3.856	1.00	40.81	C
ATOM	1375	O	GLY	B	67	44.544	67.157	3.780	1.00	40.56	O
ATOM	1376	N	VAL	B	68	42.387	66.542	3.667	1.00	41.60	N
ATOM	1377	CA	VAL	B	68	41.929	67.886	3.343	1.00	43.50	C
ATOM	1378	C	VAL	B	68	42.352	68.934	4.371	1.00	44.85	C
ATOM	1379	O	VAL	B	68	42.928	69.957	4.000	1.00	45.14	O
ATOM	1380	CB	VAL	B	68	40.391	67.930	3.175	1.00	44.16	C
ATOM	1381	CG1	VAL	B	68	39.946	69.329	2.778	1.00	44.07	C
ATOM	1382	CG2	VAL	B	68	39.958	66.927	2.101	1.00	45.02	C
ATOM	1383	N	SER	B	69	42.080	68.683	5.651	1.00	45.53	N

Table 3

ATOM	1384	CA	SER	B	69	42.448	69.632	6.709	1.00	46.56	
ATOM	1385	C	SER	B	69	43.952	69.817	6.842	1.00	46.50	C
ATOM	1386	O	SER	B	69	44.451	70.938	6.752	1.00	46.70	C
ATOM	1387	CB	SER	B	69	41.880	69.193	8.062	1.00	47.39	C
ATOM	1388	OG	SER	B	69	40.546	69.648	8.225	1.00	48.53	O
ATOM	1389	N	ALA	B	70	44.668	68.717	7.059	1.00	46.13	N
ATOM	1390	CA	ALA	B	70	46.116	68.768	7.212	1.00	46.16	C
ATOM	1391	C	ALA	B	70	46.831	69.248	5.946	1.00	46.37	C
ATOM	1392	O	ALA	B	70	47.985	69.674	6.004	1.00	46.38	O
ATOM	1393	CB	ALA	B	70	46.641	67.397	7.612	1.00	45.59	C
ATOM	1394	N	ASN	B	71	46.141	69.181	4.810	1.00	46.18	N
ATOM	1395	CA	ASN	B	71	46.716	69.580	3.530	1.00	46.20	C
ATOM	1396	C	ASN	B	71	48.020	68.816	3.275	1.00	45.29	C
ATOM	1397	O	ASN	B	71	48.998	69.373	2.780	1.00	44.85	O
ATOM	1398	CB	ASN	B	71	46.967	71.094	3.501	1.00	47.58	C
ATOM	1399	CG	ASN	B	71	47.420	71.591	2.129	1.00	49.28	C
ATOM	1400	OD1	ASN	B	71	46.896	71.171	1.090	1.00	50.06	O
ATOM	1401	ND2	ASN	B	71	48.388	72.504	2.123	1.00	49.96	N
ATOM	1402	N	ARG	B	72	48.012	67.531	3.618	1.00	44.62	N
ATOM	1403	CA	ARG	B	72	49.169	66.654	3.443	1.00	43.83	C
ATOM	1404	C	ARG	B	72	48.766	65.366	2.719	1.00	43.20	C
ATOM	1405	O	ARG	B	72	47.586	65.001	2.702	1.00	42.97	O
ATOM	1406	CB	ARG	B	72	49.764	66.296	4.805	1.00	44.52	C
ATOM	1407	CG	ARG	B	72	50.427	67.453	5.555	1.00	45.96	C
ATOM	1408	CD	ARG	B	72	50.762	67.031	6.984	1.00	47.04	C
ATOM	1409	NE	ARG	B	72	51.594	68.003	7.687	1.00	47.76	N
ATOM	1410	CZ	ARG	B	72	52.921	68.062	7.593	1.00	48.23	C
ATOM	1411	NH1	ARG	B	72	53.575	67.199	6.831	1.00	46.93	N
ATOM	1412	NH2	ARG	B	72	53.593	68.996	8.256	1.00	48.72	N
ATOM	1413	N	TYR	B	73	49.752	64.681	2.134	1.00	41.62	N
ATOM	1414	CA	TYR	B	73	49.518	63.435	1.401	1.00	40.58	C
ATOM	1415	C	TYR	B	73	50.020	62.208	2.156	1.00	39.99	C
ATOM	1416	O	TYR	B	73	51.160	62.185	2.633	1.00	39.66	O
ATOM	1417	CB	TYR	B	73	50.215	63.446	0.029	1.00	40.09	C
ATOM	1418	CG	TYR	B	73	49.784	64.535	-0.919	1.00	40.53	C
ATOM	1419	CD1	TYR	B	73	50.373	65.807	-0.872	1.00	40.88	C
ATOM	1420	CD2	TYR	B	73	48.781	64.304	-1.863	1.00	40.46	C
ATOM	1421	CE1	TYR	B	73	49.971	66.826	-1.747	1.00	40.70	C
ATOM	1422	CE2	TYR	B	73	48.368	65.313	-2.739	1.00	40.89	C
ATOM	1423	CZ	TYR	B	73	48.966	66.573	-2.673	1.00	40.86	C
ATOM	1424	OH	TYR	B	73	48.535	67.573	-3.511	1.00	40.19	O
ATOM	1425	N	LEU	B	74	49.179	61.180	2.244	1.00	38.79	N
ATOM	1426	CA	LEU	B	74	49.558	59.939	2.919	1.00	37.94	C
ATOM	1427	C	LEU	B	74	50.758	59.334	2.211	1.00	38.53	C
ATOM	1428	O	LEU	B	74	50.857	59.391	0.985	1.00	38.81	O
ATOM	1429	CB	LEU	B	74	48.416	58.926	2.890	1.00	36.70	C
ATOM	1430	CG	LEU	B	74	48.709	57.584	3.569	1.00	36.84	C
ATOM	1431	CD1	LEU	B	74	48.555	57.742	5.082	1.00	35.17	C
ATOM	1432	CD2	LEU	B	74	47.747	56.508	3.052	1.00	35.08	C
ATOM	1433	N	ALA	B	75	51.668	58.748	2.981	1.00	39.29	N
ATOM	1434	CA	ALA	B	75	52.854	58.131	2.402	1.00	40.25	C
ATOM	1435	C	ALA	B	75	53.373	56.988	3.262	1.00	40.75	C
ATOM	1436	O	ALA	B	75	53.151	56.962	4.467	1.00	39.83	O
ATOM	1437	CB	ALA	B	75	53.948	59.180	2.223	1.00	40.32	C
ATOM	1438	N	MET	B	76	54.047	56.035	2.632	1.00	42.15	N
ATOM	1439	CA	MET	B	76	54.620	54.920	3.365	1.00	44.74	C
ATOM	1440	C	MET	B	76	56.129	54.945	3.143	1.00	45.67	C
ATOM	1441	O	MET	B	76	56.600	54.917	2.000	1.00	44.81	O
ATOM	1442	CB	MET	B	76	54.050	53.580	2.898	1.00	45.53	C
ATOM	1443	CG	MET	B	76	54.433	52.434	3.831	1.00	47.11	C
ATOM	1444	SD	MET	B	76	54.068	50.811	3.162	1.00	50.36	S
ATOM	1445	CE	MET	B	76	52.275	50.720	3.489	1.00	49.90	C
ATOM	1446	N	LYS	B	77	56.873	55.014	4.246	1.00	47.14	N
ATOM	1447	CA	LYS	B	77	58.335	55.069	4.215	1.00	48.96	C
ATOM	1448	C	LYS	B	77	58.982	53.702	3.985	1.00	49.89	C
ATOM	1449	O	LYS	B	77	58.306	52.670	3.990	1.00	50.27	O

Table 3

ATOM	1450	CB	LYS	B	77	58.856	55.684	5.520	1.00	48.58	C
ATOM	1451	N	GLU	B	78	60.295	53.707	3.783	1.00	51.15	N
ATOM	1452	CA	GLU	B	78	61.064	52.485	3.535	1.00	52.23	C
ATOM	1453	C	GLU	B	78	60.975	51.445	4.660	1.00	52.96	C
ATOM	1454	O	GLU	B	78	61.069	50.241	4.408	1.00	53.35	O
ATOM	1455	CB	GLU	B	78	62.536	52.844	3.295	1.00	52.49	C
ATOM	1456	N	ASP	B	79	60.806	51.903	5.897	1.00	53.48	N
ATOM	1457	CA	ASP	B	79	60.717	50.981	7.029	1.00	54.58	C
ATOM	1458	C	ASP	B	79	59.285	50.505	7.272	1.00	54.22	C
ATOM	1459	O	ASP	B	79	59.021	49.776	8.231	1.00	54.69	O
ATOM	1460	CB	ASP	B	79	61.269	51.638	8.302	1.00	55.62	C
ATOM	1461	CG	ASP	B	79	60.462	52.847	8.735	1.00	57.57	C
ATOM	1462	OD1	ASP	B	79	60.791	53.445	9.785	1.00	58.50	O
ATOM	1463	OD2	ASP	B	79	59.496	53.204	8.025	1.00	58.63	O
ATOM	1464	N	GLY	B	80	58.365	50.926	6.407	1.00	53.35	N
ATOM	1465	CA	GLY	B	80	56.975	50.522	6.542	1.00	52.30	C
ATOM	1466	C	GLY	B	80	56.125	51.410	7.433	1.00	51.35	C
ATOM	1467	O	GLY	B	80	55.015	51.036	7.795	1.00	51.92	O
ATOM	1468	N	ARG	B	81	56.635	52.583	7.788	1.00	50.11	N
ATOM	1469	CA	ARG	B	81	55.894	53.499	8.643	1.00	49.78	C
ATOM	1470	C	ARG	B	81	55.002	54.422	7.814	1.00	49.47	C
ATOM	1471	O	ARG	B	81	55.314	54.743	6.668	1.00	48.44	O
ATOM	1472	CB	ARG	B	81	56.866	54.342	9.482	1.00	49.85	C
ATOM	1473	N	LEU	B	82	53.891	54.854	8.392	1.00	49.08	N
ATOM	1474	CA	LEU	B	82	52.994	55.743	7.672	1.00	49.61	C
ATOM	1475	C	LEU	B	82	53.087	57.170	8.192	1.00	50.01	C
ATOM	1476	O	LEU	B	82	53.215	57.399	9.398	1.00	50.52	O
ATOM	1477	CB	LEU	B	82	51.547	55.258	7.774	1.00	48.91	C
ATOM	1478	CG	LEU	B	82	51.205	53.963	7.044	1.00	48.88	C
ATOM	1479	CD1	LEU	B	82	49.688	53.840	6.948	1.00	49.36	C
ATOM	1480	CD2	LEU	B	82	51.808	53.975	5.646	1.00	48.79	C
ATOM	1481	N	LEU	B	83	53.017	58.126	7.271	1.00	50.25	N
ATOM	1482	CA	LEU	B	83	53.084	59.541	7.615	1.00	50.82	C
ATOM	1483	C	LEU	B	83	52.456	60.346	6.474	1.00	50.21	C
ATOM	1484	O	LEU	B	83	52.188	59.796	5.408	1.00	50.58	O
ATOM	1485	CB	LEU	B	83	54.550	59.951	7.833	1.00	51.37	C
ATOM	1486	CG	LEU	B	83	55.481	59.846	6.619	1.00	52.48	C
ATOM	1487	CD1	LEU	B	83	55.549	61.204	5.932	1.00	52.74	C
ATOM	1488	CD2	LEU	B	83	56.876	59.411	7.049	1.00	53.20	C
ATOM	1489	N	ALA	B	84	52.212	61.635	6.703	1.00	49.99	N
ATOM	1490	CA	ALA	B	84	51.611	62.510	5.695	1.00	49.47	C
ATOM	1491	C	ALA	B	84	52.570	63.645	5.311	1.00	49.53	C
ATOM	1492	O	ALA	B	84	52.959	64.458	6.154	1.00	49.13	O
ATOM	1493	CB	ALA	B	84	50.308	63.083	6.224	1.00	49.30	C
ATOM	1494	N	SER	B	85	52.922	63.699	4.029	1.00	49.19	N
ATOM	1495	CA	SER	B	85	53.857	64.686	3.496	1.00	48.95	C
ATOM	1496	C	SER	B	85	53.234	65.961	2.929	1.00	48.92	C
ATOM	1497	O	SER	B	85	52.156	65.931	2.329	1.00	48.79	O
ATOM	1498	CB	SER	B	85	54.712	64.025	2.411	1.00	48.86	C
ATOM	1499	OG	SER	B	85	55.596	64.959	1.822	1.00	50.02	O
ATOM	1500	N	LYS	B	86	53.932	67.080	3.112	1.00	48.52	N
ATOM	1501	CA	LYS	B	86	53.471	68.368	2.604	1.00	48.28	C
ATOM	1502	C	LYS	B	86	53.483	68.336	1.083	1.00	47.46	C
ATOM	1503	O	LYS	B	86	52.561	68.836	0.429	1.00	47.12	O
ATOM	1504	CB	LYS	B	86	54.379	69.500	3.100	1.00	48.99	C
ATOM	1505	N	SER	B	87	54.528	67.747	0.517	1.00	46.34	N
ATOM	1506	CA	SER	B	87	54.618	67.660	-0.929	1.00	46.63	C
ATOM	1507	C	SER	B	87	54.620	66.203	-1.394	1.00	46.03	C
ATOM	1508	O	SER	B	87	55.100	65.309	-0.697	1.00	46.08	O
ATOM	1509	CB	SER	B	87	55.862	68.409	-1.446	1.00	47.20	C
ATOM	1510	OG	SER	B	87	57.069	67.802	-1.015	1.00	47.87	O
ATOM	1511	N	VAL	B	88	54.071	65.986	-2.585	1.00	45.84	N
ATOM	1512	CA	VAL	B	88	53.952	64.665	-3.201	1.00	45.45	C
ATOM	1513	C	VAL	B	88	55.286	64.018	-3.580	1.00	45.49	C
ATOM	1514	O	VAL	B	88	56.091	64.630	-4.273	1.00	45.70	O
ATOM	1515	CB	VAL	B	88	53.097	64.753	-4.495	1.00	45.62	C

Table 3

ATOM	1516	CG1	VAL	B	88	52.836	63.359	-5.058	1.00	45.86	C
ATOM	1517	CG2	VAL	B	88	51.796	65.483	-4.214	1.00	45.53	C
ATOM	1518	N	THR	B	89	55.501	62.780	-3.137	1.00	45.33	N
ATOM	1519	CA	THR	B	89	56.715	62.021	-3.458	1.00	45.47	C
ATOM	1520	C	THR	B	89	56.293	60.648	-3.994	1.00	45.02	C
ATOM	1521	O	THR	B	89	55.106	60.327	-3.991	1.00	44.61	O
ATOM	1522	CB	THR	B	89	57.620	61.829	-2.213	1.00	46.28	C
ATOM	1523	OG1	THR	B	89	58.562	60.779	-2.465	1.00	47.25	O
ATOM	1524	CG2	THR	B	89	56.803	61.474	-0.988	1.00	46.77	C
ATOM	1525	N	ASP	B	90	57.242	59.835	-4.452	1.00	44.68	N
ATOM	1526	CA	ASP	B	90	56.878	58.529	-4.992	1.00	45.02	C
ATOM	1527	C	ASP	B	90	56.392	57.533	-3.932	1.00	44.14	C
ATOM	1528	O	ASP	B	90	56.014	56.408	-4.260	1.00	44.94	O
ATOM	1529	CB	ASP	B	90	58.035	57.939	-5.807	1.00	47.23	C
ATOM	1530	CG	ASP	B	90	59.237	57.589	-4.952	1.00	49.81	C
ATOM	1531	OD1	ASP	B	90	59.609	58.415	-4.089	1.00	51.02	O
ATOM	1532	OD2	ASP	B	90	59.818	56.494	-5.150	1.00	51.45	O
ATOM	1533	N	GLU	B	91	56.387	57.950	-2.671	1.00	42.82	N
ATOM	1534	CA	GLU	B	91	55.921	57.098	-1.582	1.00	41.44	C
ATOM	1535	C	GLU	B	91	54.472	57.465	-1.236	1.00	40.27	C
ATOM	1536	O	GLU	B	91	53.924	57.007	-0.233	1.00	39.81	O
ATOM	1537	CB	GLU	B	91	56.812	57.292	-0.345	1.00	41.01	C
ATOM	1538	N	CYS	B	92	53.860	58.288	-2.083	1.00	39.09	N
ATOM	1539	CA	CYS	B	92	52.494	58.751	-1.868	1.00	39.00	C
ATOM	1540	C	CYS	B	92	51.448	58.126	-2.801	1.00	37.89	C
ATOM	1541	O	CYS	B	92	50.296	58.568	-2.821	1.00	38.22	O
ATOM	1542	CB	CYS	B	92	52.460	60.278	-2.013	1.00	38.86	C
ATOM	1543	SG	CYS	B	92	53.558	61.163	-0.844	1.00	40.00	S
ATOM	1544	N	PHE	B	93	51.846	57.110	-3.561	1.00	36.66	N
ATOM	1545	CA	PHE	B	93	50.941	56.452	-4.502	1.00	36.71	C
ATOM	1546	C	PHE	B	93	50.664	54.981	-4.148	1.00	36.83	C
ATOM	1547	O	PHE	B	93	51.586	54.218	-3.829	1.00	36.31	O
ATOM	1548	CB	PHE	B	93	51.502	56.566	-5.917	1.00	37.11	C
ATOM	1549	CG	PHE	B	93	51.653	57.984	-6.385	1.00	38.68	C
ATOM	1550	CD1	PHE	B	93	50.530	58.777	-6.598	1.00	38.20	C
ATOM	1551	CD2	PHE	B	93	52.919	58.542	-6.573	1.00	38.94	C
ATOM	1552	CE1	PHE	B	93	50.657	60.111	-6.990	1.00	40.31	C
ATOM	1553	CE2	PHE	B	93	53.060	59.873	-6.965	1.00	40.19	C
ATOM	1554	CZ	PHE	B	93	51.926	60.662	-7.174	1.00	40.04	C
ATOM	1555	N	PHE	B	94	49.389	54.594	-4.230	1.00	35.09	N
ATOM	1556	CA	PHE	B	94	48.963	53.246	-3.873	1.00	33.74	C
ATOM	1557	C	PHE	B	94	47.995	52.597	-4.863	1.00	33.15	C
ATOM	1558	O	PHE	B	94	47.080	53.244	-5.375	1.00	33.22	O
ATOM	1559	CB	PHE	B	94	48.271	53.275	-2.508	1.00	34.11	C
ATOM	1560	CG	PHE	B	94	49.053	53.979	-1.435	1.00	34.05	C
ATOM	1561	CD1	PHE	B	94	49.905	53.268	-0.596	1.00	33.30	C
ATOM	1562	CD2	PHE	B	94	48.946	55.361	-1.271	1.00	33.73	C
ATOM	1563	CE1	PHE	B	94	50.645	53.924	0.395	1.00	33.49	C
ATOM	1564	CE2	PHE	B	94	49.681	56.027	-0.287	1.00	33.43	C
ATOM	1565	CZ	PHE	B	94	50.535	55.304	0.550	1.00	32.83	C
ATOM	1566	N	PHE	B	95	48.193	51.311	-5.114	1.00	31.95	N
ATOM	1567	CA	PHE	B	95	47.290	50.575	-5.992	1.00	31.76	C
ATOM	1568	C	PHE	B	95	45.979	50.411	-5.241	1.00	30.17	C
ATOM	1569	O	PHE	B	95	45.963	49.892	-4.134	1.00	29.41	O
ATOM	1570	CB	PHE	B	95	47.828	49.174	-6.308	1.00	32.03	C
ATOM	1571	CG	PHE	B	95	48.937	49.158	-7.303	1.00	33.35	C
ATOM	1572	CD1	PHE	B	95	50.257	48.999	-6.894	1.00	33.74	C
ATOM	1573	CD2	PHE	B	95	48.666	49.293	-8.656	1.00	33.65	C
ATOM	1574	CE1	PHE	B	95	51.293	48.970	-7.824	1.00	33.36	C
ATOM	1575	CE2	PHE	B	95	49.696	49.267	-9.591	1.00	34.75	C
ATOM	1576	CZ	PHE	B	95	51.014	49.103	-9.172	1.00	33.46	C
ATOM	1577	N	GLU	B	96	44.886	50.870	-5.829	1.00	30.27	N
ATOM	1578	CA	GLU	B	96	43.580	50.729	-5.196	1.00	30.73	C
ATOM	1579	C	GLU	B	96	42.888	49.529	-5.832	1.00	31.15	C
ATOM	1580	O	GLU	B	96	42.816	49.426	-7.052	1.00	30.61	O
ATOM	1581	CB	GLU	B	96	42.725	51.989	-5.401	1.00	28.79	C

Table 3

ATOM	1582	CG	GLU	B	96	41.360	51.916	-4.708	1.00	29.44	C
ATOM	1583	CD	GLU	B	96	40.476	53.138	-4.981	1.00	29.62	C
ATOM	1584	OE1	GLU	B	96	40.222	53.415	-6.167	1.00	29.90	O
ATOM	1585	OE2	GLU	B	96	40.039	53.816	-4.016	1.00	28.37	O
ATOM	1586	N	ARG	B	97	42.380	48.634	-4.996	1.00	32.72	N
ATOM	1587	CA	ARG	B	97	41.711	47.423	-5.470	1.00	35.12	C
ATOM	1588	C	ARG	B	97	40.421	47.108	-4.700	1.00	34.90	C
ATOM	1589	O	ARG	B	97	40.381	47.161	-3.475	1.00	33.69	O
ATOM	1590	CB	ARG	B	97	42.672	46.229	-5.336	1.00	37.75	C
ATOM	1591	CG	ARG	B	97	42.010	44.860	-5.501	1.00	41.93	C
ATOM	1592	CD	ARG	B	97	41.947	44.440	-6.962	1.00	44.56	C
ATOM	1593	NE	ARG	B	97	43.232	43.919	-7.422	1.00	46.30	N
ATOM	1594	CZ	ARG	B	97	43.788	42.800	-6.965	1.00	47.02	C
ATOM	1595	NH1	ARG	B	97	43.173	42.080	-6.032	1.00	46.95	N
ATOM	1596	NH2	ARG	B	97	44.959	42.396	-7.446	1.00	46.84	N
ATOM	1597	N	LEU	B	98	39.363	46.795	-5.433	1.00	35.86	N
ATOM	1598	CA	LEU	B	98	38.097	46.407	-4.823	1.00	35.99	C
ATOM	1599	C	LEU	B	98	38.170	44.881	-4.716	1.00	35.59	C
ATOM	1600	O	LEU	B	98	38.142	44.190	-5.729	1.00	36.32	O
ATOM	1601	CB	LEU	B	98	36.927	46.832	-5.715	1.00	35.68	C
ATOM	1602	CG	LEU	B	98	35.532	46.361	-5.272	1.00	36.69	C
ATOM	1603	CD1	LEU	B	98	35.289	46.724	-3.807	1.00	35.91	C
ATOM	1604	CD2	LEU	B	98	34.474	46.998	-6.161	1.00	35.80	C
ATOM	1605	N	GLU	B	99	38.294	44.363	-3.501	1.00	36.08	N
ATOM	1606	CA	GLU	B	99	38.399	42.922	-3.296	1.00	36.41	C
ATOM	1607	C	GLU	B	99	37.056	42.216	-3.459	1.00	36.93	C
ATOM	1608	O	GLU	B	99	35.999	42.853	-3.419	1.00	34.85	O
ATOM	1609	CB	GLU	B	99	38.985	42.640	-1.909	1.00	36.69	C
ATOM	1610	CG	GLU	B	99	40.353	43.288	-1.679	1.00	38.44	C
ATOM	1611	CD	GLU	B	99	41.396	42.871	-2.711	1.00	38.96	C
ATOM	1612	OE1	GLU	B	99	42.465	43.507	-2.752	1.00	39.00	O
ATOM	1613	OE2	GLU	B	99	41.158	41.912	-3.478	1.00	39.79	O
ATOM	1614	N	SER	B	100	37.109	40.897	-3.639	1.00	37.29	N
ATOM	1615	CA	SER	B	100	35.906	40.089	-3.827	1.00	37.99	C
ATOM	1616	C	SER	B	100	34.949	40.199	-2.642	1.00	37.08	C
ATOM	1617	O	SER	B	100	33.740	39.982	-2.787	1.00	37.34	O
ATOM	1618	CB	SER	B	100	36.285	38.623	-4.080	1.00	37.81	C
ATOM	1619	OG	SER	B	100	37.033	38.093	-3.000	1.00	40.53	O
ATOM	1620	N	ASN	B	101	35.487	40.554	-1.477	1.00	36.07	N
ATOM	1621	CA	ASN	B	101	34.680	40.717	-0.269	1.00	34.55	C
ATOM	1622	C	ASN	B	101	33.980	42.084	-0.230	1.00	33.39	C
ATOM	1623	O	ASN	B	101	33.245	42.387	0.713	1.00	33.54	O
ATOM	1624	CB	ASN	B	101	35.563	40.561	0.965	1.00	35.09	C
ATOM	1625	CG	ASN	B	101	36.845	41.385	0.877	1.00	37.41	C
ATOM	1626	OD1	ASN	B	101	36.826	42.557	0.489	1.00	35.76	O
ATOM	1627	ND2	ASN	B	101	37.970	40.772	1.255	1.00	38.82	N
ATOM	1628	N	ASN	B	102	34.215	42.893	-1.261	1.00	31.93	N
ATOM	1629	CA	ASN	B	102	33.636	44.228	-1.395	1.00	30.66	C
ATOM	1630	C	ASN	B	102	34.248	45.338	-0.532	1.00	30.24	C
ATOM	1631	O	ASN	B	102	33.610	46.376	-0.317	1.00	28.46	O
ATOM	1632	CB	ASN	B	102	32.120	44.197	-1.171	1.00	31.25	C
ATOM	1633	CG	ASN	B	102	31.344	43.869	-2.442	1.00	33.02	C
ATOM	1634	OD1	ASN	B	102	31.813	44.124	-3.558	1.00	33.52	O
ATOM	1635	ND2	ASN	B	102	30.141	43.319	-2.277	1.00	32.99	N
ATOM	1636	N	TYR	B	103	35.469	45.112	-0.037	1.00	28.45	N
ATOM	1637	CA	TYR	B	103	36.197	46.126	0.742	1.00	27.56	C
ATOM	1638	C	TYR	B	103	37.332	46.566	-0.167	1.00	27.29	C
ATOM	1639	O	TYR	B	103	37.645	45.865	-1.132	1.00	26.21	O
ATOM	1640	CB	TYR	B	103	36.809	45.546	2.015	1.00	26.19	C
ATOM	1641	CG	TYR	B	103	35.830	45.340	3.127	1.00	26.10	C
ATOM	1642	CD1	TYR	B	103	35.504	46.387	3.986	1.00	25.93	C
ATOM	1643	CD2	TYR	B	103	35.239	44.087	3.345	1.00	25.66	C
ATOM	1644	CE1	TYR	B	103	34.627	46.199	5.031	1.00	25.67	C
ATOM	1645	CE2	TYR	B	103	34.355	43.891	4.393	1.00	25.55	C
ATOM	1646	CZ	TYR	B	103	34.056	44.951	5.232	1.00	25.68	C
ATOM	1647	OH	TYR	B	103	33.180	44.781	6.276	1.00	26.38	O

Table 3

ATOM	1648	N	ASN	B	104	37.940	47.714	0.131	1.00	26.26	N
ATOM	1649	CA	ASN	B	104	39.053	48.213	-0.672	1.00	26.34	C
ATOM	1650	C	ASN	B	104	40.394	47.962	0.026	1.00	25.99	C
ATOM	1651	O	ASN	B	104	40.455	47.867	1.254	1.00	26.46	O
ATOM	1652	CB	ASN	B	104	38.926	49.726	-0.890	1.00	27.44	C
ATOM	1653	CG	ASN	B	104	37.931	50.098	-1.986	1.00	28.73	C
ATOM	1654	OD1	ASN	B	104	37.230	49.240	-2.548	1.00	25.88	O
ATOM	1655	ND2	ASN	B	104	37.869	51.392	-2.293	1.00	26.81	N
ATOM	1656	N	THR	B	105	41.462	47.849	-0.758	1.00	25.14	N
ATOM	1657	CA	THR	B	105	42.812	47.708	-0.201	1.00	25.17	C
ATOM	1658	C	THR	B	105	43.709	48.719	-0.924	1.00	25.62	C
ATOM	1659	O	THR	B	105	43.472	49.055	-2.086	1.00	24.52	O
ATOM	1660	CB	THR	B	105	43.430	46.315	-0.422	1.00	24.00	C
ATOM	1661	OG1	THR	B	105	43.387	46.005	-1.815	1.00	22.68	O
ATOM	1662	CG2	THR	B	105	42.709	45.256	0.405	1.00	24.52	C
ATOM	1663	N	TYR	B	106	44.730	49.200	-0.226	1.00	26.51	N
ATOM	1664	CA	TYR	B	106	45.665	50.176	-0.776	1.00	28.14	C
ATOM	1665	C	TYR	B	106	47.093	49.648	-0.605	1.00	29.96	C
ATOM	1666	O	TYR	B	106	47.626	49.593	0.506	1.00	28.79	O
ATOM	1667	CB	TYR	B	106	45.468	51.518	-0.059	1.00	27.28	C
ATOM	1668	CG	TYR	B	106	44.113	52.112	-0.362	1.00	25.83	C
ATOM	1669	CD1	TYR	B	106	43.872	52.753	-1.585	1.00	25.32	C
ATOM	1670	CD2	TYR	B	106	43.039	51.929	0.508	1.00	25.16	C
ATOM	1671	CE1	TYR	B	106	42.587	53.187	-1.937	1.00	26.20	C
ATOM	1672	CE2	TYR	B	106	41.742	52.355	0.167	1.00	24.66	C
ATOM	1673	CZ	TYR	B	106	41.524	52.976	-1.055	1.00	25.22	C
ATOM	1674	OH	TYR	B	106	40.243	53.336	-1.428	1.00	24.70	O
ATOM	1675	N	ARG	B	107	47.686	49.241	-1.723	1.00	31.88	N
ATOM	1676	CA	ARG	B	107	49.032	48.673	-1.744	1.00	34.65	C
ATOM	1677	C	ARG	B	107	50.066	49.651	-2.341	1.00	34.73	C
ATOM	1678	O	ARG	B	107	49.866	50.185	-3.429	1.00	33.56	O
ATOM	1679	CB	ARG	B	107	48.983	47.365	-2.550	1.00	35.15	C
ATOM	1680	CG	ARG	B	107	50.231	46.500	-2.494	1.00	35.99	C
ATOM	1681	CD	ARG	B	107	49.960	45.150	-3.142	1.00	36.01	C
ATOM	1682	NE	ARG	B	107	49.470	45.273	-4.514	1.00	36.49	N
ATOM	1683	CZ	ARG	B	107	50.233	45.574	-5.560	1.00	37.81	C
ATOM	1684	NH1	ARG	B	107	51.536	45.782	-5.395	1.00	39.30	N
ATOM	1685	NH2	ARG	B	107	49.698	45.681	-6.774	1.00	37.32	N
ATOM	1686	N	SER	B	108	51.161	49.866	-1.614	1.00	36.73	N
ATOM	1687	CA	SER	B	108	52.238	50.779	-2.024	1.00	37.70	C
ATOM	1688	C	SER	B	108	52.788	50.470	-3.410	1.00	38.57	C
ATOM	1689	O	SER	B	108	53.150	49.327	-3.698	1.00	38.27	O
ATOM	1690	CB	SER	B	108	53.383	50.725	-1.001	1.00	38.05	C
ATOM	1691	OG	SER	B	108	54.424	51.648	-1.302	1.00	39.50	O
ATOM	1692	N	ARG	B	109	52.853	51.482	-4.278	1.00	39.46	N
ATOM	1693	CA	ARG	B	109	53.392	51.241	-5.608	1.00	40.70	C
ATOM	1694	C	ARG	B	109	54.917	51.140	-5.551	1.00	41.47	C
ATOM	1695	O	ARG	B	109	55.534	50.547	-6.434	1.00	41.17	O
ATOM	1696	CB	ARG	B	109	52.987	52.334	-6.595	1.00	41.24	C
ATOM	1697	CG	ARG	B	109	53.367	51.964	-8.020	1.00	43.16	C
ATOM	1698	CD	ARG	B	109	52.808	52.923	-9.043	1.00	45.10	C
ATOM	1699	NE	ARG	B	109	53.312	54.279	-8.854	1.00	47.60	N
ATOM	1700	CZ	ARG	B	109	53.086	55.279	-9.702	1.00	49.05	C
ATOM	1701	NH1	ARG	B	109	52.363	55.065	-10.797	1.00	50.36	N
ATOM	1702	NH2	ARG	B	109	53.575	56.490	-9.459	1.00	49.22	N
ATOM	1703	N	LYS	B	110	55.513	51.715	-4.507	1.00	42.37	N
ATOM	1704	CA	LYS	B	110	56.972	51.676	-4.327	1.00	43.78	C
ATOM	1705	C	LYS	B	110	57.383	50.351	-3.678	1.00	44.19	C
ATOM	1706	O	LYS	B	110	58.136	49.563	-4.263	1.00	44.41	O
ATOM	1707	CB	LYS	B	110	57.436	52.843	-3.447	1.00	42.84	C
ATOM	1708	N	TYR	B	111	56.887	50.124	-2.463	1.00	43.84	N
ATOM	1709	CA	TYR	B	111	57.157	48.898	-1.720	1.00	44.25	C
ATOM	1710	C	TYR	B	111	55.946	48.008	-1.995	1.00	44.80	C
ATOM	1711	O	TYR	B	111	55.039	47.896	-1.165	1.00	45.25	O
ATOM	1712	CB	TYR	B	111	57.263	49.210	-0.226	1.00	43.80	C
ATOM	1713	N	THR	B	112	55.952	47.390	-3.174	1.00	44.95	N

Table 3

ATOM	1714	CA	THR	B	112	54.860	46.554	-3.668	1.00	45.44	C
ATOM	1715	C	THR	B	112	54.283	45.401	-2.841	1.00	45.64	C
ATOM	1716	O	THR	B	112	53.409	44.677	-3.338	1.00	45.80	O
ATOM	1717	CB	THR	B	112	55.218	45.963	-5.038	1.00	45.80	C
ATOM	1718	OG1	THR	B	112	56.262	44.997	-4.872	1.00	46.43	O
ATOM	1719	CG2	THR	B	112	55.676	47.056	-5.990	1.00	45.62	C
ATOM	1720	N	SER	B	113	54.731	45.213	-1.603	1.00	44.63	N
ATOM	1721	CA	SER	B	113	54.188	44.111	-0.813	1.00	44.47	C
ATOM	1722	C	SER	B	113	53.490	44.581	0.452	1.00	43.56	C
ATOM	1723	O	SER	B	113	52.829	43.792	1.125	1.00	43.26	O
ATOM	1724	CB	SER	B	113	55.292	43.132	-0.413	1.00	46.21	C
ATOM	1725	OG	SER	B	113	56.054	43.657	0.663	1.00	48.08	O
ATOM	1726	N	TRP	B	114	53.644	45.860	0.774	1.00	42.13	N
ATOM	1727	CA	TRP	B	114	53.042	46.425	1.975	1.00	41.14	C
ATOM	1728	C	TRP	B	114	51.712	47.153	1.722	1.00	40.23	C
ATOM	1729	O	TRP	B	114	51.519	47.793	0.689	1.00	39.96	O
ATOM	1730	CB	TRP	B	114	54.037	47.380	2.653	1.00	40.97	C
ATOM	1731	N	TYR	B	115	50.815	47.061	2.697	1.00	38.98	N
ATOM	1732	CA	TYR	B	115	49.501	47.676	2.624	1.00	38.33	C
ATOM	1733	C	TYR	B	115	49.276	48.732	3.698	1.00	37.50	C
ATOM	1734	O	TYR	B	115	49.862	48.676	4.779	1.00	38.47	O
ATOM	1735	CB	TYR	B	115	48.403	46.615	2.801	1.00	39.08	C
ATOM	1736	CG	TYR	B	115	48.269	45.613	1.679	1.00	39.03	C
ATOM	1737	CD1	TYR	B	115	49.141	44.527	1.571	1.00	39.34	C
ATOM	1738	CD2	TYR	B	115	47.256	45.741	0.731	1.00	39.04	C
ATOM	1739	CE1	TYR	B	115	49.002	43.587	0.541	1.00	39.95	C
ATOM	1740	CE2	TYR	B	115	47.107	44.818	-0.296	1.00	39.74	C
ATOM	1741	CZ	TYR	B	115	47.980	43.740	-0.390	1.00	40.53	C
ATOM	1742	OH	TYR	B	115	47.809	42.817	-1.404	1.00	40.54	O
ATOM	1743	N	VAL	B	116	48.415	49.693	3.390	1.00	36.06	N
ATOM	1744	CA	VAL	B	116	48.036	50.721	4.345	1.00	35.08	C
ATOM	1745	C	VAL	B	116	47.151	49.925	5.296	1.00	36.04	C
ATOM	1746	O	VAL	B	116	46.270	49.188	4.848	1.00	36.69	O
ATOM	1747	CB	VAL	B	116	47.181	51.821	3.669	1.00	33.88	C
ATOM	1748	CG1	VAL	B	116	46.617	52.776	4.713	1.00	32.43	C
ATOM	1749	CG2	VAL	B	116	48.021	52.570	2.655	1.00	33.57	C
ATOM	1750	N	ALA	B	117	47.368	50.059	6.595	1.00	36.87	N
ATOM	1751	CA	ALA	B	117	46.574	49.300	7.542	1.00	38.16	C
ATOM	1752	C	ALA	B	117	46.555	49.898	8.934	1.00	38.91	C
ATOM	1753	O	ALA	B	117	47.447	50.655	9.317	1.00	39.19	O
ATOM	1754	CB	ALA	B	117	47.093	47.863	7.600	1.00	39.05	C
ATOM	1755	N	LEU	B	118	45.520	49.550	9.687	1.00	40.06	N
ATOM	1756	CA	LEU	B	118	45.357	50.030	11.051	1.00	40.46	C
ATOM	1757	C	LEU	B	118	45.278	48.843	11.995	1.00	41.64	C
ATOM	1758	O	LEU	B	118	44.795	47.778	11.607	1.00	42.32	O
ATOM	1759	CB	LEU	B	118	44.083	50.856	11.170	1.00	40.02	C
ATOM	1760	CG	LEU	B	118	44.095	52.196	10.434	1.00	40.80	C
ATOM	1761	CD1	LEU	B	118	42.780	52.926	10.683	1.00	39.59	C
ATOM	1762	CD2	LEU	B	118	45.267	53.038	10.928	1.00	40.69	C
ATOM	1763	N	LYS	B	119	45.751	49.027	13.227	1.00	42.66	N
ATOM	1764	CA	LYS	B	119	45.727	47.972	14.238	1.00	43.23	C
ATOM	1765	C	LYS	B	119	44.458	48.088	15.072	1.00	43.75	C
ATOM	1766	O	LYS	B	119	43.825	49.146	15.111	1.00	43.74	O
ATOM	1767	CB	LYS	B	119	46.955	48.083	15.157	1.00	43.19	C
ATOM	1768	N	ARG	B	120	44.093	47.000	15.747	1.00	44.61	N
ATOM	1769	CA	ARG	B	120	42.896	46.980	16.583	1.00	44.95	C
ATOM	1770	C	ARG	B	120	42.940	48.066	17.647	1.00	45.06	C
ATOM	1771	O	ARG	B	120	41.909	48.441	18.204	1.00	45.18	O
ATOM	1772	CB	ARG	B	120	42.734	45.606	17.250	1.00	44.61	C
ATOM	1773	N	THR	B	121	44.135	48.583	17.913	1.00	45.91	N
ATOM	1774	CA	THR	B	121	44.321	49.618	18.924	1.00	46.59	C
ATOM	1775	C	THR	B	121	43.972	51.004	18.404	1.00	47.17	C
ATOM	1776	O	THR	B	121	43.613	51.891	19.177	1.00	47.58	O
ATOM	1777	CB	THR	B	121	45.778	49.672	19.405	1.00	47.28	C
ATOM	1778	OG1	THR	B	121	46.562	50.406	18.454	1.00	48.03	O
ATOM	1779	CG2	THR	B	121	46.352	48.258	19.546	1.00	47.34	C

Table 3

ATOM	1780	N	GLY	B	122	44.089	51.196	17.096	1.00	47.80	N
ATOM	1781	CA	GLY	B	122	43.794	52.496	16.525	1.00	48.54	C
ATOM	1782	C	GLY	B	122	45.062	53.138	15.988	1.00	48.99	C
ATOM	1783	O	GLY	B	122	45.037	54.237	15.424	1.00	49.05	O
ATOM	1784	N	GLN	B	123	46.183	52.455	16.182	1.00	49.01	N
ATOM	1785	CA	GLN	B	123	47.464	52.944	15.696	1.00	48.87	C
ATOM	1786	C	GLN	B	123	47.693	52.235	14.371	1.00	48.83	C
ATOM	1787	O	GLN	B	123	47.209	51.120	14.173	1.00	48.65	O
ATOM	1788	CB	GLN	B	123	48.581	52.600	16.687	1.00	48.91	C
ATOM	1789	N	TYR	B	124	48.415	52.874	13.457	1.00	48.90	N
ATOM	1790	CA	TYR	B	124	48.660	52.250	12.166	1.00	48.84	C
ATOM	1791	C	TYR	B	124	49.484	50.992	12.359	1.00	48.25	C
ATOM	1792	O	TYR	B	124	50.020	50.755	13.436	1.00	47.23	O
ATOM	1793	CB	TYR	B	124	49.361	53.225	11.204	1.00	50.36	C
ATOM	1794	CG	TYR	B	124	50.824	53.505	11.482	1.00	52.03	C
ATOM	1795	CD1	TYR	B	124	51.801	52.541	11.233	1.00	52.58	C
ATOM	1796	CD2	TYR	B	124	51.237	54.754	11.949	1.00	53.04	C
ATOM	1797	CE1	TYR	B	124	53.151	52.811	11.437	1.00	53.50	C
ATOM	1798	CE2	TYR	B	124	52.588	55.035	12.155	1.00	53.93	C
ATOM	1799	CZ	TYR	B	124	53.537	54.056	11.894	1.00	53.72	C
ATOM	1800	OH	TYR	B	124	54.874	54.326	12.074	1.00	54.97	O
ATOM	1801	N	LYS	B	125	49.572	50.182	11.313	1.00	48.10	N
ATOM	1802	CA	LYS	B	125	50.325	48.943	11.368	1.00	48.65	C
ATOM	1803	C	LYS	B	125	51.458	48.994	10.349	1.00	49.32	C
ATOM	1804	O	LYS	B	125	51.242	49.359	9.192	1.00	49.64	O
ATOM	1805	CB	LYS	B	125	49.395	47.771	11.067	1.00	48.68	C
ATOM	1806	CG	LYS	B	125	50.039	46.410	11.184	1.00	48.74	C
ATOM	1807	CD	LYS	B	125	48.991	45.310	11.063	1.00	48.23	C
ATOM	1808	CE	LYS	B	125	49.618	43.930	11.202	1.00	48.26	C
ATOM	1809	NZ	LYS	B	125	48.602	42.842	11.144	1.00	47.68	N
ATOM	1810	N	LEU	B	126	52.664	48.638	10.783	1.00	50.14	N
ATOM	1811	CA	LEU	B	126	53.829	48.655	9.910	1.00	50.56	C
ATOM	1812	C	LEU	B	126	53.538	47.927	8.616	1.00	51.34	C
ATOM	1813	O	LEU	B	126	53.103	46.778	8.630	1.00	52.07	O
ATOM	1814	CB	LEU	B	126	55.023	47.996	10.603	1.00	51.34	C
ATOM	1815	N	GLY	B	127	53.783	48.593	7.494	1.00	51.69	N
ATOM	1816	CA	GLY	B	127	53.541	47.967	6.211	1.00	52.65	C
ATOM	1817	C	GLY	B	127	54.206	46.608	6.088	1.00	53.66	C
ATOM	1818	O	GLY	B	127	53.682	45.708	5.431	1.00	54.03	O
ATOM	1819	N	SER	B	128	55.361	46.454	6.728	1.00	54.20	N
ATOM	1820	CA	SER	B	128	56.113	45.204	6.680	1.00	54.84	C
ATOM	1821	C	SER	B	128	55.397	44.040	7.365	1.00	54.63	C
ATOM	1822	O	SER	B	128	55.717	42.878	7.118	1.00	54.52	O
ATOM	1823	CB	SER	B	128	57.481	45.409	7.334	1.00	56.09	C
ATOM	1824	OG	SER	B	128	57.335	45.937	8.642	1.00	57.87	O
ATOM	1825	N	LYS	B	129	54.433	44.358	8.225	1.00	54.30	N
ATOM	1826	CA	LYS	B	129	53.674	43.344	8.962	1.00	53.71	C
ATOM	1827	C	LYS	B	129	52.300	43.070	8.350	1.00	53.01	C
ATOM	1828	O	LYS	B	129	51.460	42.427	8.985	1.00	52.53	O
ATOM	1829	CB	LYS	B	129	53.407	43.802	10.392	1.00	54.98	C
ATOM	1830	CG	LYS	B	129	54.592	44.193	11.231	1.00	55.83	C
ATOM	1831	CD	LYS	B	129	54.083	44.822	12.529	1.00	56.88	C
ATOM	1832	CE	LYS	B	129	53.071	43.917	13.240	1.00	57.58	C
ATOM	1833	NZ	LYS	B	129	52.452	44.575	14.433	1.00	58.18	N
ATOM	1834	N	THR	B	130	52.055	43.567	7.143	1.00	51.75	N
ATOM	1835	CA	THR	B	130	50.757	43.373	6.511	1.00	50.23	C
ATOM	1836	C	THR	B	130	50.762	42.235	5.502	1.00	50.55	C
ATOM	1837	O	THR	B	130	51.814	41.848	4.989	1.00	50.97	O
ATOM	1838	CB	THR	B	130	50.285	44.656	5.800	1.00	49.10	C
ATOM	1839	OG1	THR	B	130	51.169	44.953	4.713	1.00	47.52	O
ATOM	1840	CG2	THR	B	130	50.258	45.826	6.771	1.00	47.14	C
ATOM	1841	N	GLY	B	131	49.570	41.712	5.223	1.00	50.29	N
ATOM	1842	CA	GLY	B	131	49.421	40.618	4.282	1.00	50.10	C
ATOM	1843	C	GLY	B	131	48.043	40.655	3.649	1.00	50.39	C
ATOM	1844	O	GLY	B	131	47.115	41.205	4.241	1.00	50.38	O
ATOM	1845	N	PRO	B	132	47.871	40.063	2.457	1.00	50.68	N

Table 3

ATOM	1846	CA	PRO	B	132	46.598	40.031	1.729	1.00	51.12	C
ATOM	1847	C	PRO	B	132	45.353	39.484	2.429	1.00	51.40	C
ATOM	1848	O	PRO	B	132	44.229	39.882	2.090	1.00	52.15	O
ATOM	1849	CB	PRO	B	132	46.946	39.262	0.448	1.00	51.15	C
ATOM	1850	CG	PRO	B	132	48.128	38.453	0.826	1.00	50.96	C
ATOM	1851	CD	PRO	B	132	48.924	39.390	1.684	1.00	50.86	C
ATOM	1852	N	GLY	B	133	45.529	38.605	3.408	1.00	50.66	N
ATOM	1853	CA	GLY	B	133	44.365	38.051	4.078	1.00	49.54	C
ATOM	1854	C	GLY	B	133	44.015	38.694	5.404	1.00	49.16	C
ATOM	1855	O	GLY	B	133	43.060	38.275	6.061	1.00	49.29	O
ATOM	1856	N	GLN	B	134	44.775	39.713	5.800	1.00	48.04	N
ATOM	1857	CA	GLN	B	134	44.543	40.394	7.072	1.00	45.89	C
ATOM	1858	C	GLN	B	134	43.307	41.294	7.090	1.00	44.66	C
ATOM	1859	O	GLN	B	134	42.874	41.813	6.061	1.00	44.65	O
ATOM	1860	CB	GLN	B	134	45.777	41.230	7.462	1.00	46.36	C
ATOM	1861	CG	GLN	B	134	47.047	40.425	7.737	1.00	45.77	C
ATOM	1862	CD	GLN	B	134	48.201	41.282	8.269	1.00	45.99	C
ATOM	1863	OE1	GLN	B	134	48.006	42.415	8.705	1.00	45.33	O
ATOM	1864	NE2	GLN	B	134	49.405	40.725	8.250	1.00	45.77	N
ATOM	1865	N	LYS	B	135	42.762	41.474	8.287	1.00	42.83	N
ATOM	1866	CA	LYS	B	135	41.592	42.302	8.531	1.00	41.46	C
ATOM	1867	C	LYS	B	135	42.004	43.784	8.630	1.00	40.03	C
ATOM	1868	O	LYS	B	135	41.193	44.689	8.403	1.00	39.14	O
ATOM	1869	CB	LYS	B	135	40.960	41.825	9.837	1.00	41.75	C
ATOM	1870	CG	LYS	B	135	39.757	42.577	10.320	1.00	43.82	C
ATOM	1871	CD	LYS	B	135	39.174	41.833	11.529	1.00	45.84	C
ATOM	1872	CE	LYS	B	135	38.116	42.655	12.241	1.00	46.02	C
ATOM	1873	NZ	LYS	B	135	37.055	43.059	11.288	1.00	47.20	N
ATOM	1874	N	ALA	B	136	43.274	44.014	8.959	1.00	37.66	N
ATOM	1875	CA	ALA	B	136	43.815	45.360	9.120	1.00	36.75	C
ATOM	1876	C	ALA	B	136	43.970	46.171	7.824	1.00	34.98	C
ATOM	1877	O	ALA	B	136	44.069	47.398	7.880	1.00	35.66	O
ATOM	1878	CB	ALA	B	136	45.152	45.287	9.851	1.00	36.88	C
ATOM	1879	N	ILE	B	137	43.981	45.504	6.670	1.00	32.94	N
ATOM	1880	CA	ILE	B	137	44.122	46.198	5.389	1.00	31.61	C
ATOM	1881	C	ILE	B	137	42.798	46.482	4.660	1.00	30.44	C
ATOM	1882	O	ILE	B	137	42.809	47.069	3.570	1.00	29.05	O
ATOM	1883	CB	ILE	B	137	45.015	45.402	4.389	1.00	31.44	C
ATOM	1884	CG1	ILE	B	137	44.243	44.200	3.829	1.00	32.15	C
ATOM	1885	CG2	ILE	B	137	46.284	44.901	5.087	1.00	32.82	C
ATOM	1886	CD1	ILE	B	137	45.055	43.337	2.865	1.00	30.55	C
ATOM	1887	N	LEU	B	138	41.672	46.081	5.249	1.00	28.88	N
ATOM	1888	CA	LEU	B	138	40.374	46.272	4.591	1.00	28.50	C
ATOM	1889	C	LEU	B	138	39.662	47.565	4.957	1.00	27.52	C
ATOM	1890	O	LEU	B	138	39.334	47.800	6.122	1.00	27.00	O
ATOM	1891	CB	LEU	B	138	39.466	45.067	4.874	1.00	26.78	C
ATOM	1892	CG	LEU	B	138	40.140	43.738	4.484	1.00	27.13	C
ATOM	1893	CD1	LEU	B	138	39.256	42.552	4.855	1.00	27.13	C
ATOM	1894	CD2	LEU	B	138	40.417	43.722	2.990	1.00	25.65	C
ATOM	1895	N	PHE	B	139	39.433	48.407	3.950	1.00	26.87	N
ATOM	1896	CA	PHE	B	139	38.753	49.683	4.162	1.00	26.76	C
ATOM	1897	C	PHE	B	139	37.482	49.836	3.318	1.00	27.04	C
ATOM	1898	O	PHE	B	139	37.370	49.311	2.210	1.00	26.13	O
ATOM	1899	CB	PHE	B	139	39.686	50.863	3.852	1.00	27.83	C
ATOM	1900	CG	PHE	B	139	40.900	50.946	4.746	1.00	29.10	C
ATOM	1901	CD1	PHE	B	139	42.021	50.139	4.513	1.00	28.33	C
ATOM	1902	CD2	PHE	B	139	40.917	51.825	5.835	1.00	28.94	C
ATOM	1903	CE1	PHE	B	139	43.144	50.214	5.363	1.00	28.98	C
ATOM	1904	CE2	PHE	B	139	42.033	51.904	6.687	1.00	27.99	C
ATOM	1905	CZ	PHE	B	139	43.142	51.102	6.453	1.00	27.54	C
ATOM	1906	N	LEU	B	140	36.536	50.597	3.850	1.00	27.21	N
ATOM	1907	CA	LEU	B	140	35.287	50.856	3.162	1.00	27.69	C
ATOM	1908	C	LEU	B	140	35.169	52.353	2.947	1.00	28.23	C
ATOM	1909	O	LEU	B	140	35.067	53.112	3.910	1.00	29.52	O
ATOM	1910	CB	LEU	B	140	34.113	50.362	4.017	1.00	27.73	C
ATOM	1911	CG	LEU	B	140	32.709	50.495	3.427	1.00	28.01	C

Table 3

ATOM	1912	CD1	LEU	B	140	32.632	49.651	2.161	1.00	29.66	C
ATOM	1913	CD2	LEU	B	140	31.660	50.033	4.435	1.00	27.06	C
ATOM	1914	N	PRO	B	141	35.186	52.811	1.688	1.00	29.04	N
ATOM	1915	CA	PRO	B	141	35.069	54.255	1.461	1.00	30.00	C
ATOM	1916	C	PRO	B	141	33.656	54.740	1.805	1.00	31.46	C
ATOM	1917	O	PRO	B	141	32.664	54.133	1.391	1.00	31.39	O
ATOM	1918	CB	PRO	B	141	35.398	54.395	-0.023	1.00	29.25	C
ATOM	1919	CG	PRO	B	141	34.816	53.137	-0.603	1.00	30.27	C
ATOM	1920	CD	PRO	B	141	35.208	52.068	0.414	1.00	29.01	C
ATOM	1921	N	MET	B	142	33.567	55.818	2.574	1.00	32.79	N
ATOM	1922	CA	MET	B	142	32.274	56.367	2.970	1.00	34.51	C
ATOM	1923	C	MET	B	142	32.197	57.862	2.712	1.00	35.90	C
ATOM	1924	O	MET	B	142	33.222	58.551	2.660	1.00	36.05	O
ATOM	1925	CB	MET	B	142	32.019	56.111	4.452	1.00	34.55	C
ATOM	1926	CG	MET	B	142	32.004	54.649	4.832	1.00	34.06	C
ATOM	1927	SD	MET	B	142	31.760	54.424	6.588	1.00	34.95	S
ATOM	1928	CE	MET	B	142	29.969	54.769	6.691	1.00	34.56	C
ATOM	1929	N	SER	B	143	30.977	58.364	2.568	1.00	37.20	N
ATOM	1930	CA	SER	B	143	30.776	59.781	2.313	1.00	39.33	C
ATOM	1931	C	SER	B	143	31.251	60.661	3.460	1.00	40.56	C
ATOM	1932	O	SER	B	143	31.173	60.287	4.635	1.00	39.42	O
ATOM	1933	CB	SER	B	143	29.306	60.086	2.032	1.00	39.65	C
ATOM	1934	OG	SER	B	143	29.157	61.458	1.708	1.00	41.03	O
ATOM	1935	N	ALA	B	144	31.752	61.836	3.102	1.00	42.73	N
ATOM	1936	CA	ALA	B	144	32.230	62.781	4.098	1.00	45.56	C
ATOM	1937	C	ALA	B	144	31.066	63.652	4.578	1.00	47.26	C
ATOM	1938	O	ALA	B	144	31.263	64.793	4.983	1.00	47.91	O
ATOM	1939	CB	ALA	B	144	33.336	63.641	3.517	1.00	45.31	C
ATOM	1940	N	LYS	B	145	29.856	63.091	4.536	1.00	49.15	N
ATOM	1941	CA	LYS	B	145	28.638	63.782	4.968	1.00	50.17	C
ATOM	1942	C	LYS	B	145	28.504	65.124	4.277	1.00	50.66	C
ATOM	1943	O	LYS	B	145	28.219	65.081	3.063	1.00	51.61	O
ATOM	1944	CB	LYS	B	145	28.629	63.982	6.488	1.00	50.30	C
TER	1945		LYS	B	145						
ATOM	1946	N	HIS	C	16	18.017	33.163	-14.374	1.00	39.92	N
ATOM	1947	CA	HIS	C	16	18.118	32.023	-13.413	1.00	39.24	C
ATOM	1948	C	HIS	C	16	19.197	31.057	-13.899	1.00	38.21	C
ATOM	1949	O	HIS	C	16	19.142	30.556	-15.026	1.00	37.58	O
ATOM	1950	CB	HIS	C	16	16.770	31.305	-13.295	1.00	40.25	C
ATOM	1951	N	PHE	C	17	20.177	30.801	-13.035	1.00	37.36	N
ATOM	1952	CA	PHE	C	17	21.302	29.928	-13.375	1.00	36.68	C
ATOM	1953	C	PHE	C	17	20.941	28.480	-13.734	1.00	36.31	C
ATOM	1954	O	PHE	C	17	21.665	27.835	-14.494	1.00	35.92	O
ATOM	1955	CB	PHE	C	17	22.360	29.960	-12.250	1.00	35.03	C
ATOM	1956	CG	PHE	C	17	21.919	29.317	-10.956	1.00	34.60	C
ATOM	1957	CD1	PHE	C	17	22.194	27.974	-10.698	1.00	33.86	C
ATOM	1958	CD2	PHE	C	17	21.265	30.059	-9.984	1.00	32.80	C
ATOM	1959	CE1	PHE	C	17	21.826	27.380	-9.478	1.00	34.30	C
ATOM	1960	CE2	PHE	C	17	20.893	29.480	-8.768	1.00	33.73	C
ATOM	1961	CZ	PHE	C	17	21.177	28.133	-8.513	1.00	33.16	C
ATOM	1962	N	LYS	C	18	19.821	27.985	-13.211	1.00	36.17	N
ATOM	1963	CA	LYS	C	18	19.374	26.617	-13.481	1.00	36.04	C
ATOM	1964	C	LYS	C	18	18.752	26.413	-14.865	1.00	36.36	C
ATOM	1965	O	LYS	C	18	18.632	25.282	-15.334	1.00	37.03	O
ATOM	1966	CB	LYS	C	18	18.375	26.186	-12.407	1.00	35.95	C
ATOM	1967	CG	LYS	C	18	18.991	26.092	-11.027	1.00	36.63	C
ATOM	1968	CD	LYS	C	18	17.981	25.710	-9.966	1.00	37.95	C
ATOM	1969	CE	LYS	C	18	16.931	26.797	-9.778	1.00	38.74	C
ATOM	1970	NZ	LYS	C	18	16.200	26.619	-8.501	1.00	36.65	N
ATOM	1971	N	ASP	C	19	18.351	27.503	-15.513	1.00	36.06	N
ATOM	1972	CA	ASP	C	19	17.746	27.414	-16.835	1.00	35.59	C
ATOM	1973	C	ASP	C	19	18.751	27.158	-17.945	1.00	35.43	C
ATOM	1974	O	ASP	C	19	19.900	27.595	-17.874	1.00	35.20	O
ATOM	1975	CB	ASP	C	19	17.003	28.703	-17.174	1.00	35.67	C
ATOM	1976	CG	ASP	C	19	15.749	28.885	-16.356	1.00	36.38	C
ATOM	1977	OD1	ASP	C	19	15.225	30.011	-16.343	1.00	33.91	O

Table 3

ATOM	1978	OD2	ASP	C	19	15.288	27.894	-15.737	1.00	37.85	O
ATOM	1979	N	PRO	C	20	18.326	26.438	-18.990	1.00	35.49	N
ATOM	1980	CA	PRO	C	20	19.204	26.143	-20.123	1.00	35.29	C
ATOM	1981	C	PRO	C	20	19.551	27.448	-20.834	1.00	35.29	C
ATOM	1982	O	PRO	C	20	18.855	28.448	-20.668	1.00	34.84	O
ATOM	1983	CB	PRO	C	20	18.364	25.193	-20.983	1.00	34.82	C
ATOM	1984	CG	PRO	C	20	16.953	25.511	-20.597	1.00	36.19	C
ATOM	1985	CD	PRO	C	20	17.046	25.713	-19.112	1.00	35.72	C
ATOM	1986	N	LYS	C	21	20.624	27.445	-21.616	1.00	35.72	N
ATOM	1987	CA	LYS	C	21	21.045	28.660	-22.304	1.00	36.28	C
ATOM	1988	C	LYS	C	21	21.677	28.399	-23.648	1.00	36.33	C
ATOM	1989	O	LYS	C	21	22.015	27.265	-23.982	1.00	36.72	O
ATOM	1990	CB	LYS	C	21	22.065	29.434	-21.454	1.00	37.40	C
ATOM	1991	CG	LYS	C	21	21.619	29.715	-20.043	1.00	39.17	C
ATOM	1992	CD	LYS	C	21	22.412	30.816	-19.379	1.00	41.94	C
ATOM	1993	CE	LYS	C	21	21.957	30.947	-17.932	1.00	43.48	C
ATOM	1994	NZ	LYS	C	21	20.497	31.251	-17.926	1.00	43.44	N
ATOM	1995	N	ARG	C	22	21.824	29.465	-24.425	1.00	36.01	N
ATOM	1996	CA	ARG	C	22	22.498	29.373	-25.708	1.00	36.72	C
ATOM	1997	C	ARG	C	22	23.820	30.074	-25.415	1.00	35.60	C
ATOM	1998	O	ARG	C	22	23.848	31.032	-24.642	1.00	35.48	O
ATOM	1999	CB	ARG	C	22	21.772	30.163	-26.805	1.00	38.56	C
ATOM	2000	CG	ARG	C	22	20.285	29.887	-27.004	1.00	41.76	C
ATOM	2001	CD	ARG	C	22	19.823	30.641	-28.247	1.00	44.38	C
ATOM	2002	NE	ARG	C	22	18.376	30.820	-28.357	1.00	47.15	N
ATOM	2003	CZ	ARG	C	22	17.491	29.836	-28.488	1.00	48.90	C
ATOM	2004	NH1	ARG	C	22	17.887	28.565	-28.519	1.00	49.62	N
ATOM	2005	NH2	ARG	C	22	16.201	30.131	-28.617	1.00	48.90	N
ATOM	2006	N	LEU	C	23	24.911	29.592	-25.994	1.00	34.26	N
ATOM	2007	CA	LEU	C	23	26.205	30.244	-25.804	1.00	33.19	C
ATOM	2008	C	LEU	C	23	26.579	30.892	-27.121	1.00	32.28	C
ATOM	2009	O	LEU	C	23	26.933	30.214	-28.076	1.00	32.68	O
ATOM	2010	CB	LEU	C	23	27.281	29.238	-25.389	1.00	32.98	C
ATOM	2011	CG	LEU	C	23	27.159	28.667	-23.974	1.00	34.44	C
ATOM	2012	CD1	LEU	C	23	28.171	27.550	-23.772	1.00	33.80	C
ATOM	2013	CD2	LEU	C	23	27.363	29.788	-22.950	1.00	33.91	C
ATOM	2014	N	TYR	C	24	26.490	32.214	-27.155	1.00	31.86	N
ATOM	2015	CA	TYR	C	24	26.794	33.003	-28.334	1.00	31.36	C
ATOM	2016	C	TYR	C	24	28.282	33.375	-28.397	1.00	31.57	C
ATOM	2017	O	TYR	C	24	28.843	33.900	-27.436	1.00	32.38	O
ATOM	2018	CB	TYR	C	24	25.903	34.249	-28.311	1.00	29.63	C
ATOM	2019	CG	TYR	C	24	26.319	35.366	-29.231	1.00	28.49	C
ATOM	2020	CD1	TYR	C	24	27.325	36.257	-28.863	1.00	27.87	C
ATOM	2021	CD2	TYR	C	24	25.692	35.548	-30.464	1.00	27.27	C
ATOM	2022	CE1	TYR	C	24	27.698	37.313	-29.697	1.00	26.83	C
ATOM	2023	CE2	TYR	C	24	26.056	36.592	-31.304	1.00	27.20	C
ATOM	2024	CZ	TYR	C	24	27.064	37.475	-30.911	1.00	27.65	C
ATOM	2025	OH	TYR	C	24	27.433	38.517	-31.732	1.00	26.72	O
ATOM	2026	N	CYS	C	25	28.918	33.101	-29.530	1.00	31.53	N
ATOM	2027	CA	CYS	C	25	30.334	33.415	-29.692	1.00	32.33	C
ATOM	2028	C	CYS	C	25	30.514	34.761	-30.384	1.00	32.74	C
ATOM	2029	O	CYS	C	25	29.984	34.994	-31.471	1.00	31.68	O
ATOM	2030	CB	CYS	C	25	31.038	32.319	-30.498	1.00	31.99	C
ATOM	2031	SG	CYS	C	25	32.835	32.485	-30.543	1.00	31.09	S
ATOM	2032	N	LYS	C	26	31.263	35.647	-29.735	1.00	33.99	N
ATOM	2033	CA	LYS	C	26	31.522	36.972	-30.270	1.00	34.44	C
ATOM	2034	C	LYS	C	26	32.167	36.871	-31.652	1.00	35.28	C
ATOM	2035	O	LYS	C	26	31.939	37.717	-32.521	1.00	35.06	O
ATOM	2036	CB	LYS	C	26	32.442	37.759	-29.336	1.00	34.59	C
ATOM	2037	CG	LYS	C	26	32.498	39.236	-29.715	1.00	35.12	C
ATOM	2038	CD	LYS	C	26	33.420	40.032	-28.820	1.00	35.53	C
ATOM	2039	CE	LYS	C	26	33.366	41.500	-29.176	1.00	35.99	C
ATOM	2040	NZ	LYS	C	26	34.484	42.228	-28.523	1.00	38.19	N
ATOM	2041	N	ASN	C	27	32.968	35.830	-31.854	1.00	35.47	N
ATOM	2042	CA	ASN	C	27	33.631	35.631	-33.141	1.00	35.71	C
ATOM	2043	C	ASN	C	27	32.613	35.163	-34.185	1.00	35.15	C

Table 3

ATOM	2044	O	ASN	C	27	32.194	34.008	-34.179	1.00	34.98	O
ATOM	2045	CB	ASN	C	27	34.756	34.591	-33.007	1.00	35.80	C
ATOM	2046	CG	ASN	C	27	35.814	34.722	-34.103	1.00	36.24	C
ATOM	2047	OD1	ASN	C	27	36.616	33.811	-34.331	1.00	35.61	C
ATOM	2048	ND2	ASN	C	27	35.822	35.865	-34.778	1.00	35.41	N
ATOM	2049	N	GLY	C	28	32.199	36.071	-35.065	1.00	35.40	N
ATOM	2050	CA	GLY	C	28	31.241	35.713	-36.101	1.00	35.14	C
ATOM	2051	C	GLY	C	28	29.775	35.667	-35.683	1.00	35.73	C
ATOM	2052	O	GLY	C	28	28.888	35.664	-36.530	1.00	35.03	C
ATOM	2053	N	GLY	C	29	29.507	35.616	-34.385	1.00	36.14	C
ATOM	2054	CA	GLY	C	29	28.127	35.575	-33.934	1.00	37.01	C
ATOM	2055	C	GLY	C	29	27.434	34.237	-34.116	1.00	37.59	C
ATOM	2056	O	GLY	C	29	26.274	34.193	-34.502	1.00	37.83	C
ATOM	2057	N	PHE	C	30	28.138	33.143	-33.841	1.00	38.16	C
ATOM	2058	CA	PHE	C	30	27.554	31.808	-33.962	1.00	38.35	C
ATOM	2059	C	PHE	C	30	27.167	31.274	-32.580	1.00	38.48	C
ATOM	2060	O	PHE	C	30	27.818	31.582	-31.582	1.00	38.33	O
ATOM	2061	CB	PHE	C	30	28.545	30.803	-34.568	1.00	38.56	C
ATOM	2062	CG	PHE	C	30	29.103	31.195	-35.905	1.00	39.05	C
ATOM	2063	CD1	PHE	C	30	30.360	31.794	-36.001	1.00	38.90	C
ATOM	2064	CD2	PHE	C	30	28.415	30.886	-37.077	1.00	39.67	C
ATOM	2065	CE1	PHE	C	30	30.928	32.070	-37.248	1.00	39.02	C
ATOM	2066	CE2	PHE	C	30	28.970	31.159	-38.329	1.00	39.02	C
ATOM	2067	CZ	PHE	C	30	30.230	31.750	-38.413	1.00	39.48	C
ATOM	2068	N	PHE	C	31	26.114	30.466	-32.535	1.00	38.05	N
ATOM	2069	CA	PHE	C	31	25.672	29.850	-31.292	1.00	37.96	C
ATOM	2070	C	PHE	C	31	26.334	28.470	-31.244	1.00	38.42	C
ATOM	2071	O	PHE	C	31	26.291	27.725	-32.232	1.00	37.44	O
ATOM	2072	CB	PHE	C	31	24.145	29.680	-31.277	1.00	38.03	C
ATOM	2073	CG	PHE	C	31	23.375	30.975	-31.153	1.00	37.65	C
ATOM	2074	CD1	PHE	C	31	23.471	31.752	-30.003	1.00	37.96	C
ATOM	2075	CD2	PHE	C	31	22.553	31.412	-32.185	1.00	37.56	C
ATOM	2076	CE1	PHE	C	31	22.761	32.949	-29.878	1.00	37.78	C
ATOM	2077	CE2	PHE	C	31	21.834	32.614	-32.070	1.00	38.65	C
ATOM	2078	CZ	PHE	C	31	21.941	33.380	-30.914	1.00	38.29	C
ATOM	2079	N	LEU	C	32	26.954	28.132	-30.112	1.00	38.14	N
ATOM	2080	CA	LEU	C	32	27.603	26.828	-29.973	1.00	38.60	C
ATOM	2081	C	LEU	C	32	26.556	25.736	-30.182	1.00	38.90	C
ATOM	2082	O	LEU	C	32	25.507	25.754	-29.545	1.00	39.37	O
ATOM	2083	CB	LEU	C	32	28.223	26.684	-28.582	1.00	37.82	C
ATOM	2084	CG	LEU	C	32	29.052	25.416	-28.349	1.00	37.38	C
ATOM	2085	CD1	LEU	C	32	30.177	25.321	-29.380	1.00	37.14	C
ATOM	2086	CD2	LEU	C	32	29.626	25.447	-26.948	1.00	37.29	C
ATOM	2087	N	ARG	C	33	26.842	24.784	-31.063	1.00	39.19	N
ATOM	2088	CA	ARG	C	33	25.894	23.705	-31.351	1.00	39.63	C
ATOM	2089	C	ARG	C	33	26.445	22.300	-31.098	1.00	39.73	C
ATOM	2090	O	ARG	C	33	27.573	21.986	-31.476	1.00	39.04	O
ATOM	2091	CB	ARG	C	33	25.411	23.804	-32.807	1.00	38.58	C
ATOM	2092	CG	ARG	C	33	24.505	22.652	-33.232	1.00	38.68	C
ATOM	2093	CD	ARG	C	33	23.823	22.919	-34.566	1.00	37.94	C
ATOM	2094	NE	ARG	C	33	24.768	22.961	-35.678	1.00	39.09	N
ATOM	2095	CZ	ARG	C	33	24.405	23.061	-36.957	1.00	40.38	C
ATOM	2096	NH1	ARG	C	33	23.113	23.131	-37.277	1.00	40.24	N
ATOM	2097	NH2	ARG	C	33	25.324	23.094	-37.919	1.00	38.84	N
ATOM	2098	N	ILE	C	34	25.637	21.460	-30.459	1.00	40.70	N
ATOM	2099	CA	ILE	C	34	26.033	20.085	-30.163	1.00	42.62	C
ATOM	2100	C	ILE	C	34	25.067	19.125	-30.867	1.00	44.12	C
ATOM	2101	O	ILE	C	34	23.924	18.952	-30.439	1.00	44.15	O
ATOM	2102	CB	ILE	C	34	26.026	19.823	-28.626	1.00	42.18	C
ATOM	2103	CG1	ILE	C	34	27.040	20.743	-27.934	1.00	41.54	C
ATOM	2104	CG2	ILE	C	34	26.371	18.375	-28.330	1.00	40.90	C
ATOM	2105	CD1	ILE	C	34	27.035	20.641	-26.415	1.00	41.02	C
ATOM	2106	N	HIS	C	35	25.542	18.512	-31.949	1.00	45.92	N
ATOM	2107	CA	HIS	C	35	24.744	17.586	-32.749	1.00	47.90	C
ATOM	2108	C	HIS	C	35	24.515	16.233	-32.079	1.00	48.86	C
ATOM	2109	O	HIS	C	35	25.320	15.783	-31.263	1.00	49.13	O

Table 3

ATOM	2110	CB	HIS	C	35	25.391	17.383	-34.124	1.00	47.30	C
ATOM	2111	N	PRO	C	36	23.402	15.563	-32.429	1.00	50.20	N
ATOM	2112	CA	PRO	C	36	23.035	14.250	-31.878	1.00	50.77	C
ATOM	2113	C	PRO	C	36	24.143	13.201	-31.992	1.00	51.50	C
ATOM	2114	O	PRO	C	36	24.294	12.349	-31.111	1.00	51.79	O
ATOM	2115	CB	PRO	C	36	21.806	13.867	-32.698	1.00	50.84	C
ATOM	2116	CG	PRO	C	36	21.197	15.190	-33.044	1.00	50.69	C
ATOM	2117	CD	PRO	C	36	22.400	16.016	-33.411	1.00	50.54	C
ATOM	2118	N	ASP	C	37	24.915	13.265	-33.077	1.00	51.91	N
ATOM	2119	CA	ASP	C	37	25.997	12.315	-33.303	1.00	52.62	C
ATOM	2120	C	ASP	C	37	27.313	12.710	-32.644	1.00	52.33	C
ATOM	2121	O	ASP	C	37	28.336	12.051	-32.847	1.00	52.14	O
ATOM	2122	CB	ASP	C	37	26.231	12.111	-34.805	1.00	54.39	C
ATOM	2123	CG	ASP	C	37	26.416	13.416	-35.554	1.00	56.02	C
ATOM	2124	OD1	ASP	C	37	25.401	14.098	-35.811	1.00	57.55	O
ATOM	2125	OD2	ASP	C	37	27.573	13.762	-35.881	1.00	57.12	O
ATOM	2126	N	GLY	C	38	27.295	13.793	-31.874	1.00	51.58	N
ATOM	2127	CA	GLY	C	38	28.504	14.214	-31.191	1.00	50.83	C
ATOM	2128	C	GLY	C	38	29.416	15.231	-31.858	1.00	49.91	C
ATOM	2129	O	GLY	C	38	30.478	15.545	-31.319	1.00	50.15	O
ATOM	2130	N	ARG	C	39	29.034	15.750	-33.018	1.00	48.93	N
ATOM	2131	CA	ARG	C	39	29.874	16.745	-33.684	1.00	48.00	C
ATOM	2132	C	ARG	C	39	29.622	18.123	-33.063	1.00	47.21	C
ATOM	2133	O	ARG	C	39	28.508	18.412	-32.614	1.00	47.28	O
ATOM	2134	CB	ARG	C	39	29.571	16.786	-35.186	1.00	47.46	C
ATOM	2135	N	VAL	C	40	30.648	18.968	-33.029	1.00	45.62	N
ATOM	2136	CA	VAL	C	40	30.496	20.302	-32.460	1.00	44.73	C
ATOM	2137	C	VAL	C	40	30.904	21.416	-33.426	1.00	44.34	C
ATOM	2138	O	VAL	C	40	31.996	21.400	-33.993	1.00	43.99	O
ATOM	2139	CB	VAL	C	40	31.310	20.451	-31.139	1.00	44.63	C
ATOM	2140	CG1	VAL	C	40	31.257	21.892	-30.640	1.00	43.57	C
ATOM	2141	CG2	VAL	C	40	30.753	19.517	-30.078	1.00	43.53	C
ATOM	2142	N	ASP	C	41	30.006	22.380	-33.603	1.00	43.77	N
ATOM	2143	CA	ASP	C	41	30.242	23.528	-34.479	1.00	44.32	C
ATOM	2144	C	ASP	C	41	29.373	24.703	-34.036	1.00	44.17	C
ATOM	2145	O	ASP	C	41	28.788	24.679	-32.956	1.00	43.13	O
ATOM	2146	CB	ASP	C	41	29.919	23.178	-35.944	1.00	44.59	C
ATOM	2147	CG	ASP	C	41	28.456	22.764	-36.160	1.00	45.17	C
ATOM	2148	OD1	ASP	C	41	28.115	22.409	-37.313	1.00	45.54	O
ATOM	2149	OD2	ASP	C	41	27.650	22.789	-35.201	1.00	43.95	O
ATOM	2150	N	GLY	C	42	29.285	25.720	-34.888	1.00	44.09	N
ATOM	2151	CA	GLY	C	42	28.478	26.879	-34.577	1.00	44.88	C
ATOM	2152	C	GLY	C	42	27.509	27.198	-35.701	1.00	45.42	C
ATOM	2153	O	GLY	C	42	27.751	26.837	-36.846	1.00	45.76	O
ATOM	2154	N	VAL	C	43	26.400	27.853	-35.367	1.00	45.71	N
ATOM	2155	CA	VAL	C	43	25.396	28.252	-36.350	1.00	46.21	C
ATOM	2156	C	VAL	C	43	24.751	29.554	-35.922	1.00	46.88	C
ATOM	2157	O	VAL	C	43	24.715	29.879	-34.735	1.00	46.84	O
ATOM	2158	CB	VAL	C	43	24.262	27.209	-36.537	1.00	45.90	C
ATOM	2159	CG1	VAL	C	43	24.832	25.948	-37.106	1.00	46.54	C
ATOM	2160	CG2	VAL	C	43	23.533	26.952	-35.223	1.00	44.87	C
ATOM	2161	N	ARG	C	44	24.230	30.289	-36.898	1.00	47.36	N
ATOM	2162	CA	ARG	C	44	23.593	31.572	-36.646	1.00	48.59	C
ATOM	2163	C	ARG	C	44	22.088	31.496	-36.368	1.00	49.22	C
ATOM	2164	O	ARG	C	44	21.530	32.391	-35.731	1.00	49.22	O
ATOM	2165	CB	ARG	C	44	23.829	32.511	-37.838	1.00	48.96	C
ATOM	2166	CG	ARG	C	44	25.285	32.907	-38.098	1.00	49.81	C
ATOM	2167	CD	ARG	C	44	25.352	34.051	-39.117	1.00	50.07	C
ATOM	2168	NE	ARG	C	44	26.646	34.735	-39.135	1.00	51.51	N
ATOM	2169	CZ	ARG	C	44	27.766	34.229	-39.649	1.00	52.44	C
ATOM	2170	NH1	ARG	C	44	27.765	33.024	-40.199	1.00	53.50	N
ATOM	2171	NH2	ARG	C	44	28.892	34.931	-39.613	1.00	52.25	N
ATOM	2172	N	GLU	C	45	21.432	30.440	-36.844	1.00	49.98	N
ATOM	2173	CA	GLU	C	45	19.983	30.291	-36.665	1.00	50.43	C
ATOM	2174	C	GLU	C	45	19.553	30.052	-35.214	1.00	50.75	C
ATOM	2175	O	GLU	C	45	19.693	28.950	-34.684	1.00	50.31	O

Table 3

ATOM	2176	CB	GLU	C	45	19.456	29.157	-37.553	1.00	49.68	C
ATOM	2177	N	LYS	C	46	19.015	31.095	-34.588	1.00	51.13	N
ATOM	2178	CA	LYS	C	46	18.563	31.029	-33.203	1.00	51.85	C
ATOM	2179	C	LYS	C	46	17.496	29.955	-32.975	1.00	52.54	C
ATOM	2180	O	LYS	C	46	17.197	29.598	-31.837	1.00	52.62	O
ATOM	2181	CB	LYS	C	46	18.013	32.393	-32.771	1.00	50.92	C
ATOM	2182	N	SER	C	47	16.940	29.436	-34.062	1.00	53.02	N
ATOM	2183	CA	SER	C	47	15.893	28.422	-33.998	1.00	53.18	C
ATOM	2184	C	SER	C	47	16.393	26.980	-33.894	1.00	52.59	C
ATOM	2185	O	SER	C	47	15.634	26.077	-33.533	1.00	52.38	O
ATOM	2186	CB	SER	C	47	14.998	28.559	-35.234	1.00	53.53	C
ATOM	2187	OG	SER	C	47	14.065	27.500	-35.309	1.00	54.44	O
ATOM	2188	N	ASP	C	48	17.662	26.763	-34.218	1.00	51.97	N
ATOM	2189	CA	ASP	C	48	18.233	25.422	-34.168	1.00	51.11	C
ATOM	2190	C	ASP	C	48	18.029	24.762	-32.809	1.00	50.64	C
ATOM	2191	O	ASP	C	48	18.398	25.322	-31.777	1.00	51.03	O
ATOM	2192	CB	ASP	C	48	19.725	25.466	-34.493	1.00	50.52	C
ATOM	2193	CG	ASP	C	48	20.324	24.084	-34.659	1.00	50.05	C
ATOM	2194	OD1	ASP	C	48	20.996	23.853	-35.684	1.00	50.30	O
ATOM	2195	OD2	ASP	C	48	20.123	23.228	-33.773	1.00	49.16	O
ATOM	2196	N	PRO	C	49	17.436	23.555	-32.794	1.00	50.16	N
ATOM	2197	CA	PRO	C	49	17.174	22.800	-31.564	1.00	49.31	C
ATOM	2198	C	PRO	C	49	18.416	22.240	-30.865	1.00	48.74	C
ATOM	2199	O	PRO	C	49	18.332	21.775	-29.724	1.00	48.49	O
ATOM	2200	CB	PRO	C	49	16.242	21.685	-32.036	1.00	49.47	C
ATOM	2201	CG	PRO	C	49	16.703	21.441	-33.442	1.00	49.53	C
ATOM	2202	CD	PRO	C	49	16.876	22.853	-33.964	1.00	49.76	C
ATOM	2203	N	HIS	C	50	19.563	22.281	-31.537	1.00	47.05	N
ATOM	2204	CA	HIS	C	50	20.787	21.755	-30.943	1.00	46.14	C
ATOM	2205	C	HIS	C	50	21.742	22.788	-30.324	1.00	44.53	C
ATOM	2206	O	HIS	C	50	22.917	22.493	-30.093	1.00	44.37	O
ATOM	2207	CB	HIS	C	50	21.525	20.893	-31.972	1.00	46.67	C
ATOM	2208	CG	HIS	C	50	20.718	19.726	-32.451	1.00	48.02	C
ATOM	2209	ND1	HIS	C	50	20.261	18.741	-31.602	1.00	48.41	N
ATOM	2210	CD2	HIS	C	50	20.243	19.412	-33.680	1.00	48.11	C
ATOM	2211	CE1	HIS	C	50	19.537	17.874	-32.285	1.00	48.32	C
ATOM	2212	NE2	HIS	C	50	19.510	18.257	-33.548	1.00	48.66	N
ATOM	2213	N	ILE	C	51	21.237	23.989	-30.052	1.00	42.64	N
ATOM	2214	CA	ILE	C	51	22.047	25.042	-29.430	1.00	41.45	C
ATOM	2215	C	ILE	C	51	21.567	25.291	-28.001	1.00	40.92	C
ATOM	2216	O	ILE	C	51	22.129	26.113	-27.278	1.00	40.64	O
ATOM	2217	CB	ILE	C	51	21.964	26.382	-30.206	1.00	40.29	C
ATOM	2218	CG1	ILE	C	51	20.518	26.884	-30.221	1.00	39.12	C
ATOM	2219	CG2	ILE	C	51	22.506	26.207	-31.617	1.00	39.60	C
ATOM	2220	CD1	ILE	C	51	20.303	28.100	-31.071	1.00	37.67	C
ATOM	2221	N	LYS	C	52	20.508	24.593	-27.604	1.00	40.16	N
ATOM	2222	CA	LYS	C	52	19.976	24.717	-26.253	1.00	39.24	C
ATOM	2223	C	LYS	C	52	20.881	23.885	-25.346	1.00	37.79	C
ATOM	2224	O	LYS	C	52	20.920	22.669	-25.451	1.00	37.86	O
ATOM	2225	CB	LYS	C	52	18.539	24.200	-26.209	1.00	40.26	C
ATOM	2226	CG	LYS	C	52	17.954	24.113	-24.812	1.00	42.44	C
ATOM	2227	CD	LYS	C	52	16.433	24.038	-24.863	1.00	44.69	C
ATOM	2228	CE	LYS	C	52	15.850	23.890	-23.462	1.00	45.74	C
ATOM	2229	NZ	LYS	C	52	14.364	23.999	-23.484	1.00	47.05	N
ATOM	2230	N	LEU	C	53	21.615	24.550	-24.461	1.00	35.96	N
ATOM	2231	CA	LEU	C	53	22.556	23.865	-23.585	1.00	34.34	C
ATOM	2232	C	LEU	C	53	22.210	23.958	-22.106	1.00	33.68	C
ATOM	2233	O	LEU	C	53	21.478	24.845	-21.674	1.00	34.17	O
ATOM	2234	CB	LEU	C	53	23.958	24.432	-23.815	1.00	33.01	C
ATOM	2235	CG	LEU	C	53	24.375	24.500	-25.285	1.00	33.28	C
ATOM	2236	CD1	LEU	C	53	25.676	25.300	-25.446	1.00	31.49	C
ATOM	2237	CD2	LEU	C	53	24.518	23.078	-25.826	1.00	32.99	C
ATOM	2238	N	GLN	C	54	22.748	23.032	-21.328	1.00	32.23	N
ATOM	2239	CA	GLN	C	54	22.496	23.037	-19.903	1.00	31.29	C
ATOM	2240	C	GLN	C	54	23.831	23.018	-19.151	1.00	31.12	C
ATOM	2241	O	GLN	C	54	24.582	22.035	-19.214	1.00	30.63	O

Table 3

ATOM	2242	CB	GLN	C	54	21.616	21.831	-19.527	1.00	30.23	C
ATOM	2243	CG	GLN	C	54	21.285	21.721	-18.049	1.00	31.21	C
ATOM	2244	CD	GLN	C	54	20.529	22.939	-17.505	1.00	33.60	C
ATOM	2245	OE1	GLN	C	54	19.359	23.173	-17.841	1.00	33.50	C
ATOM	2246	NE2	GLN	C	54	21.203	23.721	-16.660	1.00	32.61	N
ATOM	2247	N	LEU	C	55	24.132	24.117	-18.458	1.00	30.81	N
ATOM	2248	CA	LEU	C	55	25.365	24.211	-17.682	1.00	31.21	C
ATOM	2249	C	LEU	C	55	25.113	23.681	-16.280	1.00	30.69	C
ATOM	2250	O	LEU	C	55	24.007	23.796	-15.762	1.00	30.33	C
ATOM	2251	CB	LEU	C	55	25.858	25.662	-17.569	1.00	31.94	C
ATOM	2252	CG	LEU	C	55	26.391	26.397	-18.797	1.00	33.07	C
ATOM	2253	CD1	LEU	C	55	27.101	27.684	-18.361	1.00	33.51	C
ATOM	2254	CD2	LEU	C	55	27.369	25.517	-19.516	1.00	34.11	C
ATOM	2255	N	GLN	C	56	26.144	23.107	-15.668	1.00	29.95	N
ATOM	2256	CA	GLN	C	56	26.040	22.572	-14.313	1.00	30.16	C
ATOM	2257	C	GLN	C	56	27.417	22.621	-13.646	1.00	29.98	C
ATOM	2258	O	GLN	C	56	28.396	22.125	-14.193	1.00	28.97	C
ATOM	2259	CB	GLN	C	56	25.525	21.126	-14.338	1.00	30.67	C
ATOM	2260	CG	GLN	C	56	25.592	20.398	-12.979	1.00	30.83	C
ATOM	2261	CD	GLN	C	56	24.680	21.001	-11.919	1.00	32.27	C
ATOM	2262	OE1	GLN	C	56	23.456	21.059	-12.090	1.00	30.94	C
ATOM	2263	NE2	GLN	C	56	25.272	21.447	-10.812	1.00	31.22	N
ATOM	2264	N	ALA	C	57	27.489	23.231	-12.468	1.00	30.09	N
ATOM	2265	CA	ALA	C	57	28.761	23.334	-11.762	1.00	31.02	C
ATOM	2266	C	ALA	C	57	29.104	22.006	-11.088	1.00	30.87	C
ATOM	2267	O	ALA	C	57	28.238	21.361	-10.493	1.00	30.82	C
ATOM	2268	CB	ALA	C	57	28.701	24.459	-10.717	1.00	30.35	C
ATOM	2269	N	GLU	C	58	30.368	21.602	-11.186	1.00	31.25	N
ATOM	2270	CA	GLU	C	58	30.831	20.348	-10.583	1.00	31.67	C
ATOM	2271	C	GLU	C	58	31.549	20.697	-9.277	1.00	32.32	C
ATOM	2272	O	GLU	C	58	31.546	19.927	-8.312	1.00	32.40	C
ATOM	2273	CB	GLU	C	58	31.790	19.636	-11.540	1.00	31.38	C
ATOM	2274	CG	GLU	C	58	32.028	18.164	-11.239	1.00	33.29	C
ATOM	2275	CD	GLU	C	58	30.737	17.347	-11.170	1.00	33.63	C
ATOM	2276	OE1	GLU	C	58	29.779	17.659	-11.907	1.00	32.82	C
ATOM	2277	OE2	GLU	C	58	30.692	16.378	-10.383	1.00	35.39	O
ATOM	2278	N	GLU	C	59	32.166	21.876	-9.279	1.00	32.68	N
ATOM	2279	CA	GLU	C	59	32.892	22.422	-8.140	1.00	33.77	C
ATOM	2280	C	GLU	C	59	32.978	23.932	-8.400	1.00	33.03	C
ATOM	2281	O	GLU	C	59	32.665	24.395	-9.504	1.00	32.28	C
ATOM	2282	CB	GLU	C	59	34.309	21.807	-8.042	1.00	35.98	C
ATOM	2283	CG	GLU	C	59	35.430	22.589	-8.751	1.00	39.17	C
ATOM	2284	CD	GLU	C	59	36.776	21.852	-8.766	1.00	41.17	C
ATOM	2285	OE1	GLU	C	59	36.912	20.863	-9.509	1.00	40.92	C
ATOM	2286	OE2	GLU	C	59	37.706	22.258	-8.036	1.00	43.20	O
ATOM	2287	N	ARG	C	60	33.408	24.699	-7.403	1.00	31.97	N
ATOM	2288	CA	ARG	C	60	33.497	26.146	-7.569	1.00	32.57	C
ATOM	2289	C	ARG	C	60	34.213	26.577	-8.855	1.00	32.05	C
ATOM	2290	O	ARG	C	60	35.356	26.198	-9.095	1.00	31.53	C
ATOM	2291	CB	ARG	C	60	34.184	26.788	-6.353	1.00	34.46	C
ATOM	2292	CG	ARG	C	60	34.301	28.305	-6.462	1.00	36.45	C
ATOM	2293	CD	ARG	C	60	34.748	28.940	-5.157	1.00	39.28	C
ATOM	2294	NE	ARG	C	60	35.277	30.277	-5.390	1.00	43.60	C
ATOM	2295	CZ	ARG	C	60	36.568	30.565	-5.524	1.00	44.35	N
ATOM	2296	NH1	ARG	C	60	37.488	29.612	-5.440	1.00	45.40	N
ATOM	2297	NH2	ARG	C	60	36.939	31.813	-5.762	1.00	46.19	N
ATOM	2298	N	GLY	C	61	33.524	27.360	-9.684	1.00	31.00	N
ATOM	2299	CA	GLY	C	61	34.111	27.837	-10.927	1.00	29.64	N
ATOM	2300	C	GLY	C	61	34.347	26.824	-12.049	1.00	29.20	C
ATOM	2301	O	GLY	C	61	34.964	27.159	-13.055	1.00	28.82	C
ATOM	2302	N	VAL	C	62	33.864	25.595	-11.889	1.00	28.84	O
ATOM	2303	CA	VAL	C	62	34.033	24.562	-12.907	1.00	28.12	N
ATOM	2304	C	VAL	C	62	32.683	24.014	-13.363	1.00	28.05	C
ATOM	2305	O	VAL	C	62	31.858	23.613	-12.543	1.00	27.91	C
ATOM	2306	CB	VAL	C	62	34.872	23.389	-12.372	1.00	30.05	C
ATOM	2307	CG1	VAL	C	62	34.900	22.249	-13.396	1.00	29.55	C

Table 3

ATOM	2308	CG2	VAL	C	62	36.290	23.876	-12.058	1.00	31.46	C
ATOM	2309	N	VAL	C	63	32.464	23.975	-14.674	1.00	26.85	N
ATOM	2310	CA	VAL	C	63	31.194	23.489	-15.194	1.00	25.70	C
ATOM	2311	C	VAL	C	63	31.299	22.425	-16.288	1.00	26.60	C
ATOM	2312	O	VAL	C	63	32.358	22.231	-16.906	1.00	25.54	O
ATOM	2313	CB	VAL	C	63	30.347	24.656	-15.794	1.00	25.51	C
ATOM	2314	CG1	VAL	C	63	30.211	25.805	-14.787	1.00	24.24	C
ATOM	2315	CG2	VAL	C	63	30.992	25.153	-17.101	1.00	24.50	C
ATOM	2316	N	SER	C	64	30.177	21.737	-16.502	1.00	26.80	N
ATOM	2317	CA	SER	C	64	30.036	20.748	-17.563	1.00	27.74	C
ATOM	2318	C	SER	C	64	28.977	21.384	-18.458	1.00	28.09	C
ATOM	2319	O	SER	C	64	28.063	22.044	-17.961	1.00	28.39	O
ATOM	2320	CB	SER	C	64	29.522	19.405	-17.023	1.00	28.22	C
ATOM	2321	OG	SER	C	64	28.186	19.471	-16.558	1.00	28.00	O
ATOM	2322	N	ILE	C	65	29.101	21.211	-19.766	1.00	28.42	N
ATOM	2323	CA	ILE	C	65	28.144	21.787	-20.701	1.00	29.32	C
ATOM	2324	C	ILE	C	65	27.470	20.666	-21.501	1.00	30.69	C
ATOM	2325	O	ILE	C	65	28.122	19.950	-22.261	1.00	30.99	O
ATOM	2326	CB	ILE	C	65	28.863	22.778	-21.640	1.00	28.28	C
ATOM	2327	CG1	ILE	C	65	29.612	23.823	-20.797	1.00	27.41	C
ATOM	2328	CG2	ILE	C	65	27.856	23.442	-22.574	1.00	28.34	C
ATOM	2329	CD1	ILE	C	65	30.471	24.785	-21.597	1.00	24.84	C
ATOM	2330	N	LYS	C	66	26.161	20.523	-21.333	1.00	32.55	N
ATOM	2331	CA	LYS	C	66	25.421	19.447	-21.995	1.00	34.96	C
ATOM	2332	C	LYS	C	66	24.381	19.875	-23.027	1.00	35.82	C
ATOM	2333	O	LYS	C	66	23.536	20.726	-22.753	1.00	36.26	O
ATOM	2334	CB	LYS	C	66	24.751	18.589	-20.913	1.00	37.11	C
ATOM	2335	CG	LYS	C	66	23.960	17.367	-21.383	1.00	38.86	C
ATOM	2336	CD	LYS	C	66	23.401	16.636	-20.159	1.00	41.20	C
ATOM	2337	CE	LYS	C	66	22.492	15.473	-20.527	1.00	42.68	C
ATOM	2338	NZ	LYS	C	66	21.233	15.954	-21.158	1.00	44.01	N
ATOM	2339	N	GLY	C	67	24.454	19.284	-24.218	1.00	37.05	N
ATOM	2340	CA	GLY	C	67	23.482	19.587	-25.254	1.00	38.80	C
ATOM	2341	C	GLY	C	67	22.191	18.873	-24.883	1.00	40.43	C
ATOM	2342	O	GLY	C	67	22.153	17.645	-24.816	1.00	39.87	O
ATOM	2343	N	VAL	C	68	21.133	19.635	-24.626	1.00	41.85	N
ATOM	2344	CA	VAL	C	68	19.856	19.047	-24.236	1.00	43.71	C
ATOM	2345	C	VAL	C	68	19.313	18.054	-25.264	1.00	44.52	C
ATOM	2346	O	VAL	C	68	18.976	16.921	-24.914	1.00	45.01	O
ATOM	2347	CB	VAL	C	68	18.782	20.142	-23.986	1.00	43.95	C
ATOM	2348	CG1	VAL	C	68	17.489	19.498	-23.480	1.00	44.00	C
ATOM	2349	CG2	VAL	C	68	19.297	21.159	-22.969	1.00	44.05	C
ATOM	2350	N	SER	C	69	19.232	18.472	-26.527	1.00	45.03	N
ATOM	2351	CA	SER	C	69	18.714	17.599	-27.585	1.00	45.87	C
ATOM	2352	C	SER	C	69	19.587	16.361	-27.804	1.00	45.68	C
ATOM	2353	O	SER	C	69	19.114	15.227	-27.700	1.00	45.84	O
ATOM	2354	CB	SER	C	69	18.575	18.378	-28.901	1.00	44.99	C
ATOM	2355	N	ALA	C	70	20.864	16.588	-28.093	1.00	45.74	N
ATOM	2356	CA	ALA	C	70	21.806	15.505	-28.334	1.00	45.43	C
ATOM	2357	C	ALA	C	70	22.010	14.612	-27.115	1.00	45.74	C
ATOM	2358	O	ALA	C	70	22.471	13.481	-27.242	1.00	46.07	O
ATOM	2359	CB	ALA	C	70	23.135	16.081	-28.770	1.00	46.08	C
ATOM	2360	N	ASN	C	71	21.661	15.122	-25.937	1.00	45.57	N
ATOM	2361	CA	ASN	C	71	21.838	14.385	-24.690	1.00	45.32	C
ATOM	2362	C	ASN	C	71	23.301	13.946	-24.532	1.00	44.61	C
ATOM	2363	O	ASN	C	71	23.583	12.835	-24.070	1.00	44.13	O
ATOM	2364	CB	ASN	C	71	20.911	13.160	-24.637	1.00	45.62	C
ATOM	2365	CG	ASN	C	71	20.814	12.557	-23.236	1.00	46.15	C
ATOM	2366	OD1	ASN	C	71	20.546	13.264	-22.254	1.00	46.61	O
ATOM	2367	ND2	ASN	C	71	21.020	11.245	-23.140	1.00	45.81	N
ATOM	2368	N	ARG	C	72	24.221	14.834	-24.917	1.00	43.86	N
ATOM	2369	CA	ARG	C	72	25.662	14.577	-24.824	1.00	43.26	C
ATOM	2370	C	ARG	C	72	26.375	15.733	-24.125	1.00	42.40	C
ATOM	2371	O	ARG	C	72	25.853	16.848	-24.070	1.00	42.22	O
ATOM	2372	CB	ARG	C	72	26.278	14.394	-26.214	1.00	43.88	C
ATOM	2373	CG	ARG	C	72	25.953	13.084	-26.921	1.00	44.93	C

ATOM	2374	CD	ARG	C	72	26.422	13.167	-28.370	1.00	46.45	C
ATOM	2375	NE	ARG	C	72	26.143	11.964	-29.152	1.00	47.61	N
ATOM	2376	CZ	ARG	C	72	27.012	10.977	-29.346	1.00	48.45	C
ATOM	2377	NH1	ARG	C	72	28.227	11.040	-28.811	1.00	48.67	N
ATOM	2378	NH2	ARG	C	72	26.671	9.930	-30.091	1.00	48.13	N
ATOM	2379	N	TYR	C	73	27.576	15.457	-23.614	1.00	40.54	N
ATOM	2380	CA	TYR	C	73	28.388	16.443	-22.904	1.00	38.82	C
ATOM	2381	C	TYR	C	73	29.579	16.942	-23.719	1.00	38.37	C
ATOM	2382	O	TYR	C	73	30.329	16.152	-24.289	1.00	37.39	O
ATOM	2383	CB	TYR	C	73	28.899	15.851	-21.586	1.00	37.69	C
ATOM	2384	CG	TYR	C	73	27.804	15.496	-20.602	1.00	37.26	C
ATOM	2385	CD1	TYR	C	73	27.081	14.305	-20.717	1.00	36.64	C
ATOM	2386	CD2	TYR	C	73	27.483	16.360	-19.555	1.00	36.86	C
ATOM	2387	CE1	TYR	C	73	26.066	13.986	-19.806	1.00	37.14	C
ATOM	2388	CE2	TYR	C	73	26.476	16.054	-18.648	1.00	36.35	C
ATOM	2389	CZ	TYR	C	73	25.771	14.872	-18.776	1.00	36.93	C
ATOM	2390	OH	TYR	C	73	24.762	14.607	-17.880	1.00	36.77	O
ATOM	2391	N	LEU	C	74	29.754	18.259	-23.762	1.00	37.92	N
ATOM	2392	CA	LEU	C	74	30.866	18.866	-24.492	1.00	38.18	C
ATOM	2393	C	LEU	C	74	32.184	18.368	-23.897	1.00	38.61	C
ATOM	2394	O	LEU	C	74	32.295	18.204	-22.685	1.00	38.88	O
ATOM	2395	CB	LEU	C	74	30.797	20.396	-24.376	1.00	38.05	C
ATOM	2396	CG	LEU	C	74	31.824	21.247	-25.131	1.00	38.02	C
ATOM	2397	CD1	LEU	C	74	31.495	21.250	-26.622	1.00	37.84	C
ATOM	2398	CD2	LEU	C	74	31.806	22.664	-24.602	1.00	37.13	C
ATOM	2399	N	ALA	C	75	33.178	18.125	-24.744	1.00	39.31	N
ATOM	2400	CA	ALA	C	75	34.475	17.653	-24.274	1.00	40.12	C
ATOM	2401	C	ALA	C	75	35.599	18.081	-25.200	1.00	40.53	C
ATOM	2402	O	ALA	C	75	35.389	18.295	-26.393	1.00	39.68	O
ATOM	2403	CB	ALA	C	75	34.472	16.139	-24.154	1.00	39.77	C
ATOM	2404	N	MET	C	76	36.793	18.215	-24.638	1.00	41.78	N
ATOM	2405	CA	MET	C	76	37.960	18.577	-25.428	1.00	43.24	C
ATOM	2406	C	MET	C	76	38.972	17.445	-25.305	1.00	44.15	C
ATOM	2407	O	MET	C	76	39.382	17.086	-24.200	1.00	43.31	O
ATOM	2408	CB	MET	C	76	38.588	19.870	-24.928	1.00	42.60	C
ATOM	2409	CG	MET	C	76	39.730	20.330	-25.796	1.00	43.03	C
ATOM	2410	SD	MET	C	76	40.561	21.749	-25.111	1.00	43.66	S
ATOM	2411	CE	MET	C	76	39.365	23.044	-25.475	1.00	43.55	C
ATOM	2412	N	LYS	C	77	39.361	16.894	-26.451	1.00	45.65	N
ATOM	2413	CA	LYS	C	77	40.313	15.790	-26.526	1.00	47.16	C
ATOM	2414	C	LYS	C	77	41.769	16.240	-26.378	1.00	48.19	C
ATOM	2415	O	LYS	C	77	42.070	17.436	-26.407	1.00	47.32	O
ATOM	2416	CB	LYS	C	77	40.131	15.075	-27.860	1.00	48.29	C
ATOM	2417	CG	LYS	C	77	38.794	14.376	-28.017	1.00	49.47	C
ATOM	2418	CD	LYS	C	77	38.813	13.040	-27.294	1.00	50.83	C
ATOM	2419	CE	LYS	C	77	37.622	12.185	-27.681	1.00	51.99	C
ATOM	2420	NZ	LYS	C	77	37.832	10.757	-27.326	1.00	52.73	N
ATOM	2421	N	GLU	C	78	42.667	15.267	-26.238	1.00	49.39	N
ATOM	2422	CA	GLU	C	78	44.095	15.528	-26.078	1.00	50.46	C
ATOM	2423	C	GLU	C	78	44.721	16.329	-27.224	1.00	51.02	C
ATOM	2424	O	GLU	C	78	45.667	17.083	-27.006	1.00	51.07	O
ATOM	2425	CB	GLU	C	78	44.850	14.204	-25.903	1.00	50.91	C
ATOM	2426	N	ASP	C	79	44.200	16.169	-28.438	1.00	51.94	N
ATOM	2427	CA	ASP	C	79	44.732	16.894	-29.593	1.00	52.77	C
ATOM	2428	C	ASP	C	79	44.094	18.271	-29.747	1.00	52.81	C
ATOM	2429	O	ASP	C	79	44.385	18.993	-30.702	1.00	53.53	O
ATOM	2430	CB	ASP	C	79	44.513	16.101	-30.887	1.00	53.03	C
ATOM	2431	CG	ASP	C	79	43.048	15.907	-31.210	1.00	53.54	C
ATOM	2432	OD1	ASP	C	79	42.741	15.465	-32.337	1.00	53.19	O
ATOM	2433	OD2	ASP	C	79	42.201	16.191	-30.335	1.00	54.33	O
ATOM	2434	N	GLY	C	80	43.213	18.624	-28.816	1.00	52.60	N
ATOM	2435	CA	GLY	C	80	42.558	19.921	-28.873	1.00	51.91	C
ATOM	2436	C	GLY	C	80	41.275	19.969	-29.688	1.00	51.26	C
ATOM	2437	O	GLY	C	80	40.765	21.051	-29.981	1.00	51.15	O
ATOM	2438	N	ARG	C	81	40.744	18.807	-30.055	1.00	50.21	N
ATOM	2439	CA	ARG	C	81	39.512	18.763	-30.836	1.00	49.98	C

ATOM	2440	C	ARG	C	81	38.295	18.757	-29.922	1.00	49.17	C
ATOM	2441	O	ARG	C	81	38.356	18.262	-28.800	1.00	48.55	O
ATOM	2442	CB	ARG	C	81	39.491	17.518	-31.735	1.00	50.35	C
ATOM	2443	N	LEU	C	82	37.187	19.306	-30.405	1.00	48.69	N
ATOM	2444	CA	LEU	C	82	35.960	19.348	-29.613	1.00	48.32	C
ATOM	2445	C	LEU	C	82	34.941	18.320	-30.099	1.00	48.64	C
ATOM	2446	O	LEU	C	82	34.789	18.102	-31.304	1.00	48.30	O
ATOM	2447	CB	LEU	C	82	35.320	20.743	-29.677	1.00	47.29	C
ATOM	2448	CG	LEU	C	82	36.026	21.976	-29.098	1.00	47.17	C
ATOM	2449	CD1	LEU	C	82	35.140	23.197	-29.319	1.00	46.72	C
ATOM	2450	CD2	LEU	C	82	36.298	21.796	-27.612	1.00	46.26	C
ATOM	2451	N	LEU	C	83	34.250	17.690	-29.154	1.00	48.75	N
ATOM	2452	CA	LEU	C	83	33.218	16.711	-29.469	1.00	49.23	C
ATOM	2453	C	LEU	C	83	32.286	16.572	-28.264	1.00	49.29	C
ATOM	2454	O	LEU	C	83	32.566	17.117	-27.200	1.00	49.90	O
ATOM	2455	CB	LEU	C	83	33.847	15.365	-29.832	1.00	49.75	C
ATOM	2456	CG	LEU	C	83	34.608	14.566	-28.775	1.00	50.52	C
ATOM	2457	CD1	LEU	C	83	33.657	13.956	-27.745	1.00	50.21	C
ATOM	2458	CD2	LEU	C	83	35.369	13.466	-29.495	1.00	51.56	C
ATOM	2459	N	ALA	C	84	31.175	15.860	-28.434	1.00	49.10	N
ATOM	2460	CA	ALA	C	84	30.219	15.668	-27.347	1.00	48.92	C
ATOM	2461	C	ALA	C	84	30.058	14.186	-27.004	1.00	48.88	C
ATOM	2462	O	ALA	C	84	29.679	13.379	-27.852	1.00	49.38	O
ATOM	2463	CB	ALA	C	84	28.880	16.277	-27.720	1.00	48.95	C
ATOM	2464	N	SER	C	85	30.336	13.851	-25.748	1.00	48.54	N
ATOM	2465	CA	SER	C	85	30.277	12.484	-25.249	1.00	48.57	C
ATOM	2466	C	SER	C	85	28.951	12.060	-24.619	1.00	48.60	C
ATOM	2467	O	SER	C	85	28.278	12.852	-23.959	1.00	48.21	O
ATOM	2468	CB	SER	C	85	31.387	12.281	-24.221	1.00	47.92	C
ATOM	2469	OG	SER	C	85	31.239	11.031	-23.585	1.00	49.89	O
ATOM	2470	N	LYS	C	86	28.598	10.793	-24.809	1.00	48.12	N
ATOM	2471	CA	LYS	C	86	27.371	10.254	-24.247	1.00	47.55	C
ATOM	2472	C	LYS	C	86	27.507	10.209	-22.728	1.00	47.26	C
ATOM	2473	O	LYS	C	86	26.563	10.521	-21.997	1.00	47.30	O
ATOM	2474	CB	LYS	C	86	27.112	8.849	-24.795	1.00	47.10	C
ATOM	2475	N	SER	C	87	28.690	9.829	-22.258	1.00	46.30	N
ATOM	2476	CA	SER	C	87	28.941	9.751	-20.826	1.00	46.50	C
ATOM	2477	C	SER	C	87	30.011	10.757	-20.395	1.00	45.67	C
ATOM	2478	O	SER	C	87	30.930	11.069	-21.146	1.00	45.37	O
ATOM	2479	CB	SER	C	87	29.367	8.326	-20.448	1.00	47.59	C
ATOM	2480	OG	SER	C	87	30.485	7.895	-21.213	1.00	47.94	O
ATOM	2481	N	VAL	C	88	29.881	11.245	-19.169	1.00	45.08	N
ATOM	2482	CA	VAL	C	88	30.794	12.226	-18.603	1.00	44.44	C
ATOM	2483	C	VAL	C	88	32.196	11.683	-18.306	1.00	44.01	C
ATOM	2484	O	VAL	C	88	32.337	10.651	-17.660	1.00	44.28	O
ATOM	2485	CB	VAL	C	88	30.198	12.788	-17.293	1.00	44.66	C
ATOM	2486	CG1	VAL	C	88	31.119	13.850	-16.699	1.00	44.31	C
ATOM	2487	CG2	VAL	C	88	28.802	13.350	-17.564	1.00	44.59	C
ATOM	2488	N	THR	C	89	33.223	12.383	-18.781	1.00	43.00	N
ATOM	2489	CA	THR	C	89	34.608	11.992	-18.524	1.00	42.40	C
ATOM	2490	C	THR	C	89	35.357	13.227	-18.034	1.00	41.68	C
ATOM	2491	O	THR	C	89	34.782	14.309	-17.974	1.00	40.99	O
ATOM	2492	CB	THR	C	89	35.313	11.464	-19.783	1.00	42.09	C
ATOM	2493	OG1	THR	C	89	35.446	12.524	-20.734	1.00	42.86	O
ATOM	2494	CG2	THR	C	89	34.519	10.318	-20.400	1.00	42.59	C
ATOM	2495	N	ASP	C	90	36.633	13.066	-17.689	1.00	41.15	N
ATOM	2496	CA	ASP	C	90	37.443	14.174	-17.191	1.00	41.02	C
ATOM	2497	C	ASP	C	90	37.718	15.258	-18.228	1.00	41.00	C
ATOM	2498	O	ASP	C	90	38.282	16.305	-17.910	1.00	41.60	O
ATOM	2499	CB	ASP	C	90	38.776	13.652	-16.628	1.00	40.89	C
ATOM	2500	CG	ASP	C	90	39.530	12.725	-17.604	1.00	41.99	C
ATOM	2501	OD1	ASP	C	90	39.161	12.634	-18.802	1.00	40.96	O
ATOM	2502	OD2	ASP	C	90	40.515	12.089	-17.162	1.00	40.95	O
ATOM	2503	N	GLU	C	91	37.320	15.011	-19.469	1.00	40.62	N
ATOM	2504	CA	GLU	C	91	37.542	15.989	-20.529	1.00	40.60	C
ATOM	2505	C	GLU	C	91	36.272	16.810	-20.769	1.00	38.90	C

Table 3

ATOM	2506	O	GLU	C	91	36.183	17.563	-21.733	1.00	38.75	O
ATOM	2507	CB	GLU	C	91	37.960	15.276	-21.820	1.00	40.75	C
ATOM	2508	CG	GLU	C	91	39.061	14.251	-21.627	1.00	40.73	C
ATOM	2509	CD	GLU	C	91	39.559	13.672	-22.942	1.00	41.24	C
ATOM	2510	OE1	GLU	C	91	38.728	13.210	-23.755	1.00	39.80	O
ATOM	2511	OE2	GLU	C	91	40.788	13.678	-23.159	1.00	42.00	O
ATOM	2512	N	CYS	C	92	35.304	16.667	-19.873	1.00	37.52	N
ATOM	2513	CA	CYS	C	92	34.032	17.374	-19.989	1.00	37.32	C
ATOM	2514	C	CYS	C	92	33.843	18.530	-18.996	1.00	36.94	C
ATOM	2515	O	CYS	C	92	32.738	19.064	-18.875	1.00	36.38	O
ATOM	2516	CB	CYS	C	92	32.877	16.380	-19.822	1.00	37.36	C
ATOM	2517	SG	CYS	C	92	32.820	15.037	-21.053	1.00	37.79	S
ATOM	2518	N	PHE	C	93	34.915	18.918	-18.301	1.00	36.25	N
ATOM	2519	CA	PHE	C	93	34.850	19.988	-17.308	1.00	35.38	C
ATOM	2520	C	PHE	C	93	35.703	21.203	-17.687	1.00	34.84	C
ATOM	2521	O	PHE	C	93	36.850	21.068	-18.115	1.00	34.56	O
ATOM	2522	CB	PHE	C	93	35.241	19.415	-15.938	1.00	36.14	C
ATOM	2523	CG	PHE	C	93	34.295	18.338	-15.452	1.00	37.64	C
ATOM	2524	CD1	PHE	C	93	32.993	18.660	-15.077	1.00	36.97	C
ATOM	2525	CD2	PHE	C	93	34.675	16.996	-15.454	1.00	38.01	C
ATOM	2526	CE1	PHE	C	93	32.077	17.670	-14.718	1.00	38.43	C
ATOM	2527	CE2	PHE	C	93	33.764	15.993	-15.095	1.00	39.03	C
ATOM	2528	CZ	PHE	C	93	32.459	16.333	-14.727	1.00	39.06	C
ATOM	2529	N	PHE	C	94	35.132	22.393	-17.514	1.00	33.24	N
ATOM	2530	CA	PHE	C	94	35.802	23.627	-17.893	1.00	32.55	C
ATOM	2531	C	PHE	C	94	35.689	24.748	-16.862	1.00	33.00	C
ATOM	2532	O	PHE	C	94	34.622	24.949	-16.262	1.00	32.17	O
ATOM	2533	CB	PHE	C	94	35.203	24.129	-19.202	1.00	31.92	C
ATOM	2534	CG	PHE	C	94	35.190	23.103	-20.300	1.00	31.77	C
ATOM	2535	CD1	PHE	C	94	36.240	23.030	-21.213	1.00	31.68	C
ATOM	2536	CD2	PHE	C	94	34.123	22.209	-20.424	1.00	31.56	C
ATOM	2537	CE1	PHE	C	94	36.229	22.083	-22.238	1.00	32.19	C
ATOM	2538	CE2	PHE	C	94	34.099	21.256	-21.442	1.00	31.45	C
ATOM	2539	CZ	PHE	C	94	35.156	21.193	-22.354	1.00	32.41	C
ATOM	2540	N	PHE	C	95	36.788	25.479	-16.672	1.00	31.65	N
ATOM	2541	CA	PHE	C	95	36.785	26.605	-15.749	1.00	32.59	C
ATOM	2542	C	PHE	C	95	35.973	27.715	-16.422	1.00	32.18	C
ATOM	2543	O	PHE	C	95	36.285	28.107	-17.544	1.00	31.89	O
ATOM	2544	CB	PHE	C	95	38.203	27.153	-15.502	1.00	32.78	C
ATOM	2545	CG	PHE	C	95	39.113	26.219	-14.754	1.00	33.25	C
ATOM	2546	CD1	PHE	C	95	40.174	25.588	-15.406	1.00	33.55	C
ATOM	2547	CD2	PHE	C	95	38.942	26.004	-13.389	1.00	33.39	C
ATOM	2548	CE1	PHE	C	95	41.060	24.752	-14.701	1.00	33.84	C
ATOM	2549	CE2	PHE	C	95	39.819	25.170	-12.673	1.00	34.03	C
ATOM	2550	CZ	PHE	C	95	40.881	24.544	-13.333	1.00	33.13	C
ATOM	2551	N	GLU	C	96	34.933	28.205	-15.755	1.00	31.97	N
ATOM	2552	CA	GLU	C	96	34.145	29.292	-16.321	1.00	32.01	C
ATOM	2553	C	GLU	C	96	34.593	30.582	-15.667	1.00	32.86	C
ATOM	2554	O	GLU	C	96	34.685	30.674	-14.438	1.00	31.69	O
ATOM	2555	CB	GLU	C	96	32.644	29.131	-16.070	1.00	30.63	C
ATOM	2556	CG	GLU	C	96	31.826	30.275	-16.687	1.00	30.23	C
ATOM	2557	CD	GLU	C	96	30.391	30.313	-16.195	1.00	31.57	C
ATOM	2558	OE1	GLU	C	96	30.191	30.709	-15.029	1.00	31.17	O
ATOM	2559	OE2	GLU	C	96	29.472	29.942	-16.964	1.00	30.53	O
ATOM	2560	N	ARG	C	97	34.858	31.582	-16.497	1.00	33.81	N
ATOM	2561	CA	ARG	C	97	35.288	32.876	-15.996	1.00	36.12	C
ATOM	2562	C	ARG	C	97	34.610	34.050	-16.699	1.00	34.78	C
ATOM	2563	O	ARG	C	97	34.470	34.063	-17.915	1.00	34.00	O
ATOM	2564	CB	ARG	C	97	36.809	33.008	-16.138	1.00	38.79	C
ATOM	2565	CG	ARG	C	97	37.343	34.362	-15.710	1.00	42.82	C
ATOM	2566	CD	ARG	C	97	38.351	34.248	-14.579	1.00	47.40	C
ATOM	2567	NE	ARG	C	97	39.732	34.315	-15.050	1.00	50.42	N
ATOM	2568	CZ	ARG	C	97	40.229	35.309	-15.785	1.00	51.99	C
ATOM	2569	NH1	ARG	C	97	39.456	36.326	-16.144	1.00	52.03	N
ATOM	2570	NH2	ARG	C	97	41.508	35.293	-16.153	1.00	53.32	N
ATOM	2571	N	LEU	C	98	34.168	35.023	-15.914	1.00	35.44	N

Table 3

ATOM	2572	CA	LEU	C	98	33.549	36.233	-16.451	1.00	35.58	C
ATOM	2573	C	LEU	C	98	34.702	37.211	-16.606	1.00	36.26	C
ATOM	2574	O	LEU	C	98	35.252	37.674	-15.612	1.00	37.23	O
ATOM	2575	CB	LEU	C	98	32.537	36.816	-15.469	1.00	34.84	C
ATOM	2576	CG	LEU	C	98	32.101	38.257	-15.784	1.00	36.02	C
ATOM	2577	CD1	LEU	C	98	31.366	38.301	-17.119	1.00	34.57	C
ATOM	2578	CD2	LEU	C	98	31.201	38.782	-14.663	1.00	36.07	C
ATOM	2579	N	GLU	C	99	35.086	37.514	-17.842	1.00	37.80	N
ATOM	2580	CA	GLU	C	99	36.204	38.433	-18.084	1.00	38.69	C
ATOM	2581	C	GLU	C	99	35.808	39.884	-17.844	1.00	39.79	C
ATOM	2582	O	GLU	C	99	34.619	40.226	-17.785	1.00	39.34	O
ATOM	2583	CB	GLU	C	99	36.739	38.281	-19.517	1.00	39.78	C
ATOM	2584	CG	GLU	C	99	37.157	36.852	-19.908	1.00	42.32	C
ATOM	2585	CD	GLU	C	99	38.473	36.383	-19.275	1.00	44.17	C
ATOM	2586	OE1	GLU	C	99	38.778	35.171	-19.365	1.00	44.05	O
ATOM	2587	OE2	GLU	C	99	39.205	37.216	-18.698	1.00	45.49	O
ATOM	2588	N	SER	C	100	36.821	40.738	-17.713	1.00	40.51	N
ATOM	2589	CA	SER	C	100	36.617	42.165	-17.470	1.00	40.62	C
ATOM	2590	C	SER	C	100	35.794	42.816	-18.572	1.00	39.80	C
ATOM	2591	O	SER	C	100	35.152	43.848	-18.353	1.00	41.01	O
ATOM	2592	CB	SER	C	100	37.971	42.882	-17.356	1.00	42.46	C
ATOM	2593	OG	SER	C	100	38.653	42.906	-18.603	1.00	43.81	O
ATOM	2594	N	ASN	C	101	35.821	42.222	-19.763	1.00	38.39	N
ATOM	2595	CA	ASN	C	101	35.060	42.740	-20.900	1.00	36.37	C
ATOM	2596	C	ASN	C	101	33.584	42.307	-20.845	1.00	35.56	C
ATOM	2597	O	ASN	C	101	32.792	42.648	-21.725	1.00	36.19	O
ATOM	2598	CB	ASN	C	101	35.683	42.244	-22.210	1.00	37.90	C
ATOM	2599	N	ASN	C	102	33.237	41.549	-19.810	1.00	33.69	N
ATOM	2600	CA	ASN	C	102	31.890	41.035	-19.584	1.00	32.91	C
ATOM	2601	C	ASN	C	102	31.418	39.878	-20.473	1.00	31.53	C
ATOM	2602	O	ASN	C	102	30.215	39.656	-20.621	1.00	29.70	O
ATOM	2603	CB	ASN	C	102	30.851	42.162	-19.599	1.00	33.64	C
ATOM	2604	CG	ASN	C	102	30.685	42.813	-18.231	1.00	35.78	C
ATOM	2605	OD1	ASN	C	102	30.944	42.182	-17.197	1.00	36.62	O
ATOM	2606	ND2	ASN	C	102	30.239	44.072	-18.214	1.00	35.16	N
ATOM	2607	N	TYR	C	103	32.374	39.156	-21.055	1.00	29.91	N
ATOM	2608	CA	TYR	C	103	32.090	37.975	-21.870	1.00	29.05	C
ATOM	2609	C	TYR	C	103	32.597	36.788	-21.031	1.00	28.17	C
ATOM	2610	O	TYR	C	103	33.392	36.972	-20.113	1.00	28.49	O
ATOM	2611	CB	TYR	C	103	32.843	38.035	-23.201	1.00	28.04	C
ATOM	2612	CG	TYR	C	103	32.186	38.901	-24.268	1.00	28.96	C
ATOM	2613	CD1	TYR	C	103	31.185	38.385	-25.103	1.00	28.99	C
ATOM	2614	CD2	TYR	C	103	32.568	40.232	-24.450	1.00	28.27	C
ATOM	2615	CE1	TYR	C	103	30.587	39.175	-26.096	1.00	28.06	C
ATOM	2616	CE2	TYR	C	103	31.976	41.027	-25.434	1.00	27.36	C
ATOM	2617	CZ	TYR	C	103	30.995	40.495	-26.249	1.00	28.17	C
ATOM	2618	OH	TYR	C	103	30.430	41.280	-27.220	1.00	27.43	O
ATOM	2619	N	ASN	C	104	32.121	35.584	-21.319	1.00	27.04	N
ATOM	2620	CA	ASN	C	104	32.556	34.393	-20.583	1.00	26.71	C
ATOM	2621	C	ASN	C	104	33.604	33.620	-21.378	1.00	25.89	C
ATOM	2622	O	ASN	C	104	33.641	33.709	-22.606	1.00	24.27	O
ATOM	2623	CB	ASN	C	104	31.385	33.436	-20.349	1.00	26.70	C
ATOM	2624	CG	ASN	C	104	30.573	33.778	-19.126	1.00	27.03	C
ATOM	2625	OD1	ASN	C	104	30.641	34.883	-18.605	1.00	27.86	O
ATOM	2626	ND2	ASN	C	104	29.784	32.817	-18.663	1.00	27.30	N
ATOM	2627	N	THR	C	105	34.448	32.871	-20.671	1.00	25.77	N
ATOM	2628	CA	THR	C	105	35.444	32.017	-21.315	1.00	26.79	C
ATOM	2629	C	THR	C	105	35.374	30.659	-20.626	1.00	27.22	C
ATOM	2630	O	THR	C	105	35.037	30.568	-19.434	1.00	26.69	O
ATOM	2631	CB	THR	C	105	36.887	32.561	-21.197	1.00	27.27	C
ATOM	2632	OG1	THR	C	105	37.277	32.601	-19.819	1.00	27.69	O
ATOM	2633	CG2	THR	C	105	36.988	33.940	-21.817	1.00	26.48	C
ATOM	2634	N	TYR	C	106	35.683	29.608	-21.383	1.00	27.57	N
ATOM	2635	CA	TYR	C	106	35.649	28.245	-20.868	1.00	28.53	C
ATOM	2636	C	TYR	C	106	36.980	27.560	-21.138	1.00	29.84	C
ATOM	2637	O	TYR	C	106	37.298	27.243	-22.279	1.00	30.42	O

Table 3

ATOM	2638	CB	TYR	C	106	34.492	27.498	-21.529	1.00	27.19	C
ATOM	2639	CG	TYR	C	106	33.178	28.086	-21.100	1.00	26.37	C
ATOM	2640	CD1	TYR	C	106	32.607	27.734	-19.871	1.00	24.88	C
ATOM	2641	CD2	TYR	C	106	32.562	29.082	-21.856	1.00	24.49	C
ATOM	2642	CE1	TYR	C	106	31.461	28.365	-19.406	1.00	24.93	C
ATOM	2643	CE2	TYR	C	106	31.419	29.720	-21.397	1.00	24.64	C
ATOM	2644	CZ	TYR	C	106	30.878	29.364	-20.173	1.00	24.07	C
ATOM	2645	OH	TYR	C	106	29.785	30.037	-19.690	1.00	23.81	O
ATOM	2646	N	ARG	C	107	37.747	27.343	-20.071	1.00	31.74	N
ATOM	2647	CA	ARG	C	107	39.068	26.728	-20.159	1.00	33.10	C
ATOM	2648	C	ARG	C	107	39.093	25.297	-19.606	1.00	33.48	C
ATOM	2649	O	ARG	C	107	38.622	25.033	-18.503	1.00	33.37	O
ATOM	2650	CB	ARG	C	107	40.071	27.616	-19.417	1.00	33.24	C
ATOM	2651	CG	ARG	C	107	41.514	27.177	-19.479	1.00	34.14	C
ATOM	2652	CD	ARG	C	107	42.413	28.233	-18.821	1.00	33.47	C
ATOM	2653	NE	ARG	C	107	41.977	28.538	-17.461	1.00	32.49	N
ATOM	2654	CZ	ARG	C	107	42.333	27.851	-16.382	1.00	33.45	C
ATOM	2655	NH1	ARG	C	107	43.153	26.809	-16.490	1.00	33.22	N
ATOM	2656	NH2	ARG	C	107	41.850	28.191	-15.192	1.00	32.96	N
ATOM	2657	N	SER	C	108	39.643	24.380	-20.396	1.00	34.74	N
ATOM	2658	CA	SER	C	108	39.735	22.962	-20.030	1.00	35.93	C
ATOM	2659	C	SER	C	108	40.408	22.738	-18.680	1.00	36.71	C
ATOM	2660	O	SER	C	108	41.496	23.261	-18.432	1.00	36.82	O
ATOM	2661	CB	SER	C	108	40.508	22.195	-21.111	1.00	35.40	C
ATOM	2662	OG	SER	C	108	40.722	20.843	-20.748	1.00	33.84	O
ATOM	2663	N	ARG	C	109	39.768	21.966	-17.807	1.00	37.26	N
ATOM	2664	CA	ARG	C	109	40.369	21.695	-16.507	1.00	38.94	C
ATOM	2665	C	ARG	C	109	41.478	20.654	-16.664	1.00	40.40	C
ATOM	2666	O	ARG	C	109	42.385	20.583	-15.835	1.00	41.02	O
ATOM	2667	CB	ARG	C	109	39.326	21.196	-15.496	1.00	38.66	C
ATOM	2668	CG	ARG	C	109	39.879	21.084	-14.063	1.00	37.85	C
ATOM	2669	CD	ARG	C	109	38.814	20.658	-13.055	1.00	37.07	C
ATOM	2670	NE	ARG	C	109	38.218	19.369	-13.402	1.00	37.11	N
ATOM	2671	CZ	ARG	C	109	37.403	18.673	-12.612	1.00	37.27	C
ATOM	2672	NH1	ARG	C	109	37.072	19.136	-11.417	1.00	37.53	N
ATOM	2673	NH2	ARG	C	109	36.926	17.500	-13.009	1.00	37.87	N
ATOM	2674	N	LYS	C	110	41.410	19.857	-17.732	1.00	41.49	N
ATOM	2675	CA	LYS	C	110	42.423	18.834	-17.983	1.00	42.63	C
ATOM	2676	C	LYS	C	110	43.628	19.426	-18.720	1.00	42.64	C
ATOM	2677	O	LYS	C	110	44.756	19.351	-18.227	1.00	43.22	O
ATOM	2678	CB	LYS	C	110	41.822	17.668	-18.775	1.00	43.33	C
ATOM	2679	CG	LYS	C	110	42.686	16.403	-18.750	1.00	44.52	C
ATOM	2680	CD	LYS	C	110	41.816	15.148	-18.694	1.00	45.95	C
ATOM	2681	CE	LYS	C	110	42.649	13.872	-18.721	1.00	45.97	C
ATOM	2682	NZ	LYS	C	110	43.302	13.673	-20.041	1.00	46.29	N
ATOM	2683	N	TYR	C	111	43.381	20.013	-19.889	1.00	42.26	N
ATOM	2684	CA	TYR	C	111	44.421	20.650	-20.692	1.00	42.11	C
ATOM	2685	C	TYR	C	111	44.252	22.137	-20.374	1.00	41.74	C
ATOM	2686	O	TYR	C	111	43.661	22.897	-21.144	1.00	41.37	O
ATOM	2687	CB	TYR	C	111	44.177	20.348	-22.178	1.00	42.34	C
ATOM	2688	CG	TYR	C	111	43.874	18.884	-22.420	1.00	43.43	C
ATOM	2689	CD1	TYR	C	111	44.858	17.905	-22.239	1.00	43.53	C
ATOM	2690	CD2	TYR	C	111	42.576	18.462	-22.723	1.00	43.58	C
ATOM	2691	CE1	TYR	C	111	44.553	16.542	-22.341	1.00	43.93	C
ATOM	2692	CE2	TYR	C	111	42.256	17.098	-22.826	1.00	43.90	C
ATOM	2693	CZ	TYR	C	111	43.248	16.144	-22.630	1.00	44.13	C
ATOM	2694	OH	TYR	C	111	42.937	14.803	-22.687	1.00	43.02	O
ATOM	2695	N	THR	C	112	44.785	22.525	-19.219	1.00	41.67	N
ATOM	2696	CA	THR	C	112	44.666	23.880	-18.681	1.00	42.15	C
ATOM	2697	C	THR	C	112	45.077	25.107	-19.488	1.00	42.41	C
ATOM	2698	O	THR	C	112	45.018	26.214	-18.969	1.00	42.75	O
ATOM	2699	CB	THR	C	112	45.365	23.973	-17.310	1.00	41.69	C
ATOM	2700	OG1	THR	C	112	46.748	23.631	-17.453	1.00	40.08	O
ATOM	2701	CG2	THR	C	112	44.696	23.028	-16.311	1.00	40.24	C
ATOM	2702	N	SER	C	113	45.477	24.941	-20.742	1.00	42.56	N
ATOM	2703	CA	SER	C	113	45.861	26.103	-21.531	1.00	42.48	C

Table 3

ATOM	2704	C	SER	C	113	44.964	26.331	-22.738	1.00	41.74	C
ATOM	2705	O	SER	C	113	45.054	27.367	-23.402	1.00	41.60	O
ATOM	2706	CB	SER	C	113	47.320	25.975	-21.989	1.00	42.76	C
ATOM	2707	OG	SER	C	113	48.202	26.193	-20.903	1.00	43.02	O
ATOM	2708	N	TRP	C	114	44.087	25.374	-23.008	1.00	40.80	N
ATOM	2709	CA	TRP	C	114	43.211	25.476	-24.163	1.00	40.67	C
ATOM	2710	C	TRP	C	114	41.782	25.918	-23.831	1.00	39.23	C
ATOM	2711	O	TRP	C	114	41.236	25.565	-22.787	1.00	39.47	O
ATOM	2712	CB	TRP	C	114	43.223	24.136	-24.910	1.00	42.07	C
ATOM	2713	CG	TRP	C	114	44.638	23.683	-25.263	1.00	44.13	C
ATOM	2714	CD1	TRP	C	114	45.764	24.473	-25.344	1.00	44.09	C
ATOM	2715	CD2	TRP	C	114	45.060	22.355	-25.622	1.00	44.26	C
ATOM	2716	NE1	TRP	C	114	46.850	23.719	-25.729	1.00	44.28	N
ATOM	2717	CE2	TRP	C	114	46.449	22.419	-25.908	1.00	45.01	C
ATOM	2718	CE3	TRP	C	114	44.403	21.122	-25.732	1.00	45.00	C
ATOM	2719	CZ2	TRP	C	114	47.190	21.293	-26.297	1.00	44.84	C
ATOM	2720	CZ3	TRP	C	114	45.145	19.994	-26.120	1.00	45.55	C
ATOM	2721	CH2	TRP	C	114	46.522	20.093	-26.396	1.00	45.81	C
ATOM	2722	N	TYR	C	115	41.196	26.700	-24.733	1.00	37.86	N
ATOM	2723	CA	TYR	C	115	39.843	27.225	-24.573	1.00	37.08	C
ATOM	2724	C	TYR	C	115	38.845	26.691	-25.595	1.00	36.26	C
ATOM	2725	O	TYR	C	115	39.210	26.330	-26.710	1.00	36.31	O
ATOM	2726	CB	TYR	C	115	39.833	28.750	-24.711	1.00	36.58	C
ATOM	2727	CG	TYR	C	115	40.567	29.525	-23.645	1.00	36.87	C
ATOM	2728	CD1	TYR	C	115	41.894	29.920	-23.826	1.00	37.54	C
ATOM	2729	CD2	TYR	C	115	39.921	29.907	-22.470	1.00	36.57	C
ATOM	2730	CE1	TYR	C	115	42.561	30.687	-22.857	1.00	37.18	C
ATOM	2731	CE2	TYR	C	115	40.577	30.670	-21.498	1.00	37.62	C
ATOM	2732	CZ	TYR	C	115	41.896	31.058	-21.700	1.00	37.00	C
ATOM	2733	OH	TYR	C	115	42.538	31.822	-20.753	1.00	38.71	O
ATOM	2734	N	VAL	C	116	37.577	26.650	-25.200	1.00	35.32	N
ATOM	2735	CA	VAL	C	116	36.518	26.241	-26.113	1.00	34.41	C
ATOM	2736	C	VAL	C	116	36.406	27.472	-27.018	1.00	34.62	C
ATOM	2737	O	VAL	C	116	36.361	28.599	-26.529	1.00	33.71	O
ATOM	2738	CB	VAL	C	116	35.200	25.995	-25.350	1.00	34.30	C
ATOM	2739	CG1	VAL	C	116	34.048	25.822	-26.330	1.00	33.87	C
ATOM	2740	CG2	VAL	C	116	35.341	24.755	-24.461	1.00	33.16	C
ATOM	2741	N	ALA	C	117	36.385	27.268	-28.330	1.00	34.69	N
ATOM	2742	CA	ALA	C	117	36.341	28.404	-29.241	1.00	35.58	C
ATOM	2743	C	ALA	C	117	35.799	28.052	-30.618	1.00	36.71	C
ATOM	2744	O	ALA	C	117	35.830	26.895	-31.040	1.00	36.73	O
ATOM	2745	CB	ALA	C	117	37.738	28.985	-29.384	1.00	33.52	C
ATOM	2746	N	LEU	C	118	35.316	29.069	-31.319	1.00	36.96	N
ATOM	2747	CA	LEU	C	118	34.790	28.882	-32.657	1.00	38.21	C
ATOM	2748	C	LEU	C	118	35.525	29.796	-33.626	1.00	39.32	C
ATOM	2749	O	LEU	C	118	35.980	30.871	-33.247	1.00	39.31	O
ATOM	2750	CB	LEU	C	118	33.292	29.180	-32.685	1.00	37.82	C
ATOM	2751	CG	LEU	C	118	32.420	28.177	-31.925	1.00	37.61	C
ATOM	2752	CD1	LEU	C	118	30.980	28.624	-31.995	1.00	37.18	C
ATOM	2753	CD2	LEU	C	118	32.583	26.778	-32.517	1.00	36.37	C
ATOM	2754	N	LYS	C	119	35.643	29.355	-34.876	1.00	40.72	N
ATOM	2755	CA	LYS	C	119	36.322	30.136	-35.907	1.00	42.14	C
ATOM	2756	C	LYS	C	119	35.323	30.991	-36.664	1.00	42.14	C
ATOM	2757	O	LYS	C	119	34.121	30.726	-36.636	1.00	42.19	O
ATOM	2758	CB	LYS	C	119	37.068	29.212	-36.880	1.00	43.11	C
ATOM	2759	CG	LYS	C	119	37.999	28.252	-36.161	1.00	44.83	C
ATOM	2760	CD	LYS	C	119	39.198	27.812	-36.994	1.00	46.40	C
ATOM	2761	CE	LYS	C	119	38.855	26.720	-37.982	1.00	47.25	C
ATOM	2762	NZ	LYS	C	119	40.088	25.981	-38.401	1.00	47.67	N
ATOM	2763	N	ARG	C	120	35.829	32.022	-37.335	1.00	42.15	N
ATOM	2764	CA	ARG	C	120	34.991	32.935	-38.107	1.00	42.88	C
ATOM	2765	C	ARG	C	120	34.147	32.185	-39.129	1.00	43.19	C
ATOM	2766	O	ARG	C	120	33.133	32.691	-39.598	1.00	43.38	O
ATOM	2767	CB	ARG	C	120	35.859	33.969	-38.829	1.00	42.13	C
ATOM	2768	N	THR	C	121	34.571	30.972	-39.463	1.00	44.11	N
ATOM	2769	CA	THR	C	121	33.868	30.148	-40.437	1.00	44.82	C

Table 3

ATOM	2770	C	THR	C	121	32.649	29.451	-39.852	1.00	45.53	C
ATOM	2771	O	THR	C	121	31.703	29.138	-40.572	1.00	46.25	O
ATOM	2772	CB	THR	C	121	34.795	29.057	-41.031	1.00	45.19	C
ATOM	2773	OG1	THR	C	121	35.257	28.190	-39.987	1.00	44.99	O
ATOM	2774	CG2	THR	C	121	35.990	29.692	-41.719	1.00	44.57	C
ATOM	2775	N	GLY	C	122	32.664	29.208	-38.549	1.00	45.46	N
ATOM	2776	CA	GLY	C	122	31.543	28.523	-37.939	1.00	46.35	C
ATOM	2777	C	GLY	C	122	31.964	27.141	-37.469	1.00	46.95	C
ATOM	2778	O	GLY	C	122	31.180	26.399	-36.872	1.00	47.14	O
ATOM	2779	N	GLN	C	123	33.214	26.798	-37.752	1.00	46.82	N
ATOM	2780	CA	GLN	C	123	33.784	25.524	-37.343	1.00	47.12	C
ATOM	2781	C	GLN	C	123	34.530	25.790	-36.041	1.00	47.36	C
ATOM	2782	O	GLN	C	123	35.039	26.897	-35.828	1.00	46.67	O
ATOM	2783	CB	GLN	C	123	34.764	25.025	-38.407	1.00	47.34	C
ATOM	2784	CG	GLN	C	123	34.134	24.871	-39.785	1.00	48.83	C
ATOM	2785	CD	GLN	C	123	32.958	23.903	-39.779	1.00	49.80	C
ATOM	2786	OE1	GLN	C	123	33.134	22.705	-39.550	1.00	50.77	O
ATOM	2787	NE2	GLN	C	123	31.752	24.422	-40.021	1.00	49.73	N
ATOM	2788	N	TYR	C	124	34.599	24.795	-35.162	1.00	46.99	N
ATOM	2789	CA	TYR	C	124	35.301	25.002	-33.907	1.00	47.03	C
ATOM	2790	C	TYR	C	124	36.778	25.268	-34.187	1.00	46.35	C
ATOM	2791	O	TYR	C	124	37.256	25.057	-35.297	1.00	45.97	O
ATOM	2792	CB	TYR	C	124	35.126	23.793	-32.973	1.00	47.14	C
ATOM	2793	CG	TYR	C	124	35.846	22.531	-33.392	1.00	47.82	C
ATOM	2794	CD1	TYR	C	124	37.238	22.436	-33.318	1.00	48.08	C
ATOM	2795	CD2	TYR	C	124	35.137	21.427	-33.854	1.00	48.30	C
ATOM	2796	CE1	TYR	C	124	37.902	21.270	-33.692	1.00	48.67	C
ATOM	2797	CE2	TYR	C	124	35.790	20.256	-34.228	1.00	49.35	C
ATOM	2798	CZ	TYR	C	124	37.172	20.187	-34.146	1.00	49.55	C
ATOM	2799	OH	TYR	C	124	37.814	19.031	-34.516	1.00	50.42	O
ATOM	2800	N	LYS	C	125	37.492	25.742	-33.178	1.00	46.37	N
ATOM	2801	CA	LYS	C	125	38.906	26.043	-33.314	1.00	46.94	C
ATOM	2802	C	LYS	C	125	39.699	25.130	-32.379	1.00	48.01	C
ATOM	2803	O	LYS	C	125	39.342	24.989	-31.206	1.00	47.58	O
ATOM	2804	CB	LYS	C	125	39.157	27.516	-32.965	1.00	45.51	C
ATOM	2805	CG	LYS	C	125	40.595	27.960	-33.137	1.00	44.49	C
ATOM	2806	CD	LYS	C	125	40.772	29.449	-32.872	1.00	44.14	C
ATOM	2807	CE	LYS	C	125	42.203	29.865	-33.188	1.00	44.33	C
ATOM	2808	NZ	LYS	C	125	42.480	31.317	-33.012	1.00	44.72	N
ATOM	2809	N	LEU	C	126	40.755	24.498	-32.901	1.00	48.86	N
ATOM	2810	CA	LEU	C	126	41.583	23.599	-32.095	1.00	49.57	C
ATOM	2811	C	LEU	C	126	42.010	24.278	-30.805	1.00	50.19	C
ATOM	2812	O	LEU	C	126	42.540	25.394	-30.824	1.00	50.52	O
ATOM	2813	CB	LEU	C	126	42.838	23.163	-32.859	1.00	49.28	C
ATOM	2814	CG	LEU	C	126	42.741	22.054	-33.907	1.00	49.30	C
ATOM	2815	CD1	LEU	C	126	44.132	21.783	-34.451	1.00	49.33	C
ATOM	2816	CD2	LEU	C	126	42.161	20.789	-33.300	1.00	48.47	C
ATOM	2817	N	GLY	C	127	41.779	23.600	-29.686	1.00	50.50	N
ATOM	2818	CA	GLY	C	127	42.146	24.159	-28.400	1.00	51.25	C
ATOM	2819	C	GLY	C	127	43.596	24.597	-28.357	1.00	51.49	C
ATOM	2820	O	GLY	C	127	43.936	25.587	-27.706	1.00	51.40	O
ATOM	2821	N	SER	C	128	44.455	23.862	-29.056	1.00	51.91	N
ATOM	2822	CA	SER	C	128	45.881	24.175	-29.086	1.00	52.56	C
ATOM	2823	C	SER	C	128	46.204	25.499	-29.781	1.00	52.60	C
ATOM	2824	O	SER	C	128	47.298	26.040	-29.613	1.00	52.59	O
ATOM	2825	CB	SER	C	128	46.658	23.031	-29.754	1.00	52.18	C
ATOM	2826	OG	SER	C	128	46.170	22.754	-31.056	1.00	52.80	O
ATOM	2827	N	LYS	C	129	45.250	26.023	-30.548	1.00	52.51	N
ATOM	2828	CA	LYS	C	129	45.457	27.279	-31.260	1.00	52.09	C
ATOM	2829	C	LYS	C	129	44.745	28.456	-30.596	1.00	51.76	C
ATOM	2830	O	LYS	C	129	44.621	29.527	-31.195	1.00	52.11	O
ATOM	2831	CB	LYS	C	129	44.982	27.142	-32.711	1.00	52.16	C
ATOM	2832	N	THR	C	130	44.285	28.264	-29.362	1.00	50.68	N
ATOM	2833	CA	THR	C	130	43.578	29.324	-28.640	1.00	49.50	C
ATOM	2834	C	THR	C	130	44.489	30.078	-27.673	1.00	49.62	C
ATOM	2835	O	THR	C	130	45.534	29.570	-27.254	1.00	49.24	O

Table 3

ATOM	2836	CB	THR	C	130	42.370	28.767	-27.828	1.00	48.35	C
ATOM	2837	OG1	THR	C	130	42.837	27.886	-26.801	1.00	46.67	O
ATOM	2838	CG2	THR	C	130	41.419	28.006	-28.737	1.00	47.87	C
ATOM	2839	N	GLY	C	131	44.074	31.294	-27.327	1.00	49.58	N
ATOM	2840	CA	GLY	C	131	44.836	32.128	-26.414	1.00	50.00	C
ATOM	2841	C	GLY	C	131	43.918	33.094	-25.687	1.00	50.38	C
ATOM	2842	O	GLY	C	131	42.841	33.407	-26.192	1.00	50.52	O
ATOM	2843	N	PRO	C	132	44.323	33.602	-24.511	1.00	50.42	N
ATOM	2844	CA	PRO	C	132	43.564	34.541	-23.677	1.00	50.80	C
ATOM	2845	C	PRO	C	132	43.042	35.821	-24.328	1.00	50.86	C
ATOM	2846	O	PRO	C	132	42.005	36.347	-23.916	1.00	51.41	O
ATOM	2847	CB	PRO	C	132	44.537	34.859	-22.543	1.00	50.19	C
ATOM	2848	CG	PRO	C	132	45.333	33.615	-22.426	1.00	50.69	C
ATOM	2849	CD	PRO	C	132	45.608	33.279	-23.871	1.00	50.73	C
ATOM	2850	N	GLY	C	133	43.750	36.334	-25.326	1.00	50.68	N
ATOM	2851	CA	GLY	C	133	43.301	37.569	-25.950	1.00	50.31	C
ATOM	2852	C	GLY	C	133	42.495	37.425	-27.231	1.00	49.78	C
ATOM	2853	O	GLY	C	133	42.092	38.426	-27.832	1.00	50.24	O
ATOM	2854	N	GLN	C	134	42.242	36.188	-27.645	1.00	48.18	N
ATOM	2855	CA	GLN	C	134	41.504	35.929	-28.880	1.00	46.73	C
ATOM	2856	C	GLN	C	134	40.003	36.213	-28.809	1.00	45.05	C
ATOM	2857	O	GLN	C	134	39.380	36.120	-27.750	1.00	45.79	O
ATOM	2858	CB	GLN	C	134	41.719	34.476	-29.312	1.00	46.87	C
ATOM	2859	CG	GLN	C	134	43.099	34.190	-29.882	1.00	47.41	C
ATOM	2860	CD	GLN	C	134	43.388	32.707	-29.971	1.00	47.95	C
ATOM	2861	OE1	GLN	C	134	42.484	31.904	-30.195	1.00	48.19	O
ATOM	2862	NE2	GLN	C	134	44.654	32.335	-29.804	1.00	47.92	N
ATOM	2863	N	LYS	C	135	39.434	36.548	-29.960	1.00	42.11	N
ATOM	2864	CA	LYS	C	135	38.012	36.838	-30.088	1.00	40.04	C
ATOM	2865	C	LYS	C	135	37.212	35.530	-30.172	1.00	38.28	C
ATOM	2866	O	LYS	C	135	36.022	35.498	-29.874	1.00	36.96	O
ATOM	2867	CB	LYS	C	135	37.779	37.668	-31.353	1.00	39.93	C
ATOM	2868	CG	LYS	C	135	36.356	38.127	-31.568	1.00	41.26	C
ATOM	2869	CD	LYS	C	135	36.252	38.964	-32.836	1.00	42.03	C
ATOM	2870	CE	LYS	C	135	34.843	39.510	-33.005	1.00	44.12	C
ATOM	2871	NZ	LYS	C	135	34.708	40.444	-34.159	1.00	45.15	N
ATOM	2872	N	ALA	C	136	37.890	34.457	-30.568	1.00	36.67	N
ATOM	2873	CA	ALA	C	136	37.278	33.143	-30.732	1.00	35.40	C
ATOM	2874	C	ALA	C	136	36.852	32.448	-29.442	1.00	34.50	C
ATOM	2875	O	ALA	C	136	36.033	31.534	-29.478	1.00	34.22	O
ATOM	2876	CB	ALA	C	136	38.228	32.240	-31.502	1.00	36.34	C
ATOM	2877	N	ILE	C	137	37.402	32.873	-28.307	1.00	32.81	N
ATOM	2878	CA	ILE	C	137	37.068	32.253	-27.026	1.00	31.85	C
ATOM	2879	C	ILE	C	137	36.030	33.019	-26.185	1.00	30.74	C
ATOM	2880	O	ILE	C	137	35.693	32.594	-25.076	1.00	29.55	O
ATOM	2881	CB	ILE	C	137	38.316	32.100	-26.153	1.00	32.24	C
ATOM	2882	CG1	ILE	C	137	38.781	33.480	-25.679	1.00	32.05	C
ATOM	2883	CG2	ILE	C	137	39.426	31.428	-26.951	1.00	32.13	C
ATOM	2884	CD1	ILE	C	137	39.787	33.421	-24.527	1.00	31.70	C
ATOM	2885	N	LEU	C	138	35.523	34.132	-26.709	1.00	29.05	N
ATOM	2886	CA	LEU	C	138	34.559	34.947	-25.966	1.00	28.81	C
ATOM	2887	C	LEU	C	138	33.101	34.590	-26.244	1.00	28.16	C
ATOM	2888	O	LEU	C	138	32.629	34.695	-27.369	1.00	26.69	O
ATOM	2889	CB	LEU	C	138	34.800	36.422	-26.263	1.00	28.20	C
ATOM	2890	CG	LEU	C	138	36.231	36.912	-25.993	1.00	29.51	C
ATOM	2891	CD1	LEU	C	138	36.375	38.314	-26.550	1.00	29.14	C
ATOM	2892	CD2	LEU	C	138	36.564	36.878	-24.489	1.00	28.12	C
ATOM	2893	N	PHE	C	139	32.401	34.171	-25.194	1.00	28.26	N
ATOM	2894	CA	PHE	C	139	31.003	33.770	-25.294	1.00	28.24	C
ATOM	2895	C	PHE	C	139	30.087	34.593	-24.402	1.00	28.66	C
ATOM	2896	O	PHE	C	139	30.485	35.048	-23.329	1.00	28.09	O
ATOM	2897	CB	PHE	C	139	30.848	32.305	-24.886	1.00	27.63	C
ATOM	2898	CG	PHE	C	139	31.420	31.329	-25.871	1.00	28.77	C
ATOM	2899	CD1	PHE	C	139	32.759	30.978	-25.829	1.00	28.45	C
ATOM	2900	CD2	PHE	C	139	30.604	30.760	-26.853	1.00	28.64	C
ATOM	2901	CE1	PHE	C	139	33.285	30.070	-26.751	1.00	29.93	C

ATOM	2902	CE2	PHE	C	139	31.119	29.857	-27.780	1.00	28.93	C
ATOM	2903	CZ	PHE	C	139	32.463	29.510	-27.729	1.00	29.11	C
ATOM	2904	N	LEU	C	140	28.843	34.746	-24.833	1.00	28.67	N
ATOM	2905	CA	LEU	C	140	27.858	35.477	-24.059	1.00	29.11	C
ATOM	2906	C	LEU	C	140	26.681	34.540	-23.809	1.00	29.71	C
ATOM	2907	O	LEU	C	140	26.002	34.125	-24.746	1.00	30.07	O
ATOM	2908	CB	LEU	C	140	27.397	36.711	-24.836	1.00	30.72	C
ATOM	2909	CG	LEU	C	140	26.598	37.804	-24.121	1.00	32.61	C
ATOM	2910	CD1	LEU	C	140	27.455	38.462	-23.036	1.00	34.13	C
ATOM	2911	CD2	LEU	C	140	26.171	38.863	-25.140	1.00	33.01	C
ATOM	2912	N	PRO	C	141	26.439	34.165	-22.545	1.00	30.12	N
ATOM	2913	CA	PRO	C	141	25.309	33.270	-22.279	1.00	31.30	C
ATOM	2914	C	PRO	C	141	23.979	33.993	-22.542	1.00	32.79	C
ATOM	2915	O	PRO	C	141	23.788	35.138	-22.113	1.00	32.92	O
ATOM	2916	CB	PRO	C	141	25.502	32.903	-20.807	1.00	30.88	C
ATOM	2917	CG	PRO	C	141	26.136	34.135	-20.251	1.00	32.30	C
ATOM	2918	CD	PRO	C	141	27.164	34.468	-21.301	1.00	30.47	C
ATOM	2919	N	MET	C	142	23.078	33.335	-23.270	1.00	33.37	N
ATOM	2920	CA	MET	C	142	21.774	33.925	-23.588	1.00	35.47	C
ATOM	2921	C	MET	C	142	20.624	32.966	-23.284	1.00	36.61	C
ATOM	2922	O	MET	C	142	20.794	31.743	-23.269	1.00	36.18	O
ATOM	2923	CB	MET	C	142	21.704	34.330	-25.070	1.00	35.37	C
ATOM	2924	CG	MET	C	142	22.608	35.496	-25.470	1.00	35.81	C
ATOM	2925	SD	MET	C	142	22.635	35.805	-27.272	1.00	36.85	S
ATOM	2926	CE	MET	C	142	21.354	37.092	-27.421	1.00	36.14	C
ATOM	2927	N	SER	C	143	19.449	33.536	-23.048	1.00	38.73	N
ATOM	2928	CA	SER	C	143	18.253	32.756	-22.750	1.00	40.72	C
ATOM	2929	C	SER	C	143	17.892	31.800	-23.874	1.00	41.63	C
ATOM	2930	O	SER	C	143	18.057	32.116	-25.056	1.00	40.60	O
ATOM	2931	CB	SER	C	143	17.060	33.683	-22.515	1.00	41.40	C
ATOM	2932	OG	SER	C	143	15.863	32.937	-22.405	1.00	43.45	O
ATOM	2933	N	ALA	C	144	17.393	30.628	-23.498	1.00	43.48	N
ATOM	2934	CA	ALA	C	144	16.977	29.637	-24.475	1.00	45.83	C
ATOM	2935	C	ALA	C	144	15.525	29.918	-24.880	1.00	47.20	C
ATOM	2936	O	ALA	C	144	14.797	29.011	-25.274	1.00	47.66	O
ATOM	2937	CB	ALA	C	144	17.100	28.250	-23.883	1.00	46.09	C
ATOM	2938	N	LYS	C	145	15.117	31.183	-24.774	1.00	48.47	N
ATOM	2939	CA	LYS	C	145	13.762	31.598	-25.136	1.00	49.70	C
ATOM	2940	C	LYS	C	145	12.717	30.794	-24.379	1.00	50.25	C
ATOM	2941	O	LYS	C	145	12.639	31.010	-23.149	1.00	51.81	O
ATOM	2942	CB	LYS	C	145	13.544	31.434	-26.645	1.00	48.79	C
TER	2943		LYS	C	145						
ATOM	2944	N	HIS	D	16	54.126	19.899	14.823	1.00	38.67	N
ATOM	2945	CA	HIS	D	16	54.234	21.034	13.858	1.00	38.27	C
ATOM	2946	C	HIS	D	16	55.316	21.999	14.343	1.00	37.14	C
ATOM	2947	O	HIS	D	16	55.264	22.495	15.468	1.00	36.27	O
ATOM	2948	CB	HIS	D	16	52.888	21.755	13.734	1.00	39.12	C
ATOM	2949	N	PHE	D	17	56.295	22.258	13.480	1.00	36.78	N
ATOM	2950	CA	PHE	D	17	57.414	23.139	13.827	1.00	36.50	C
ATOM	2951	C	PHE	D	17	57.042	24.586	14.193	1.00	36.19	C
ATOM	2952	O	PHE	D	17	57.753	25.226	14.970	1.00	36.26	O
ATOM	2953	CB	PHE	D	17	58.472	23.128	12.704	1.00	35.56	C
ATOM	2954	CG	PHE	D	17	58.007	23.745	11.400	1.00	35.39	C
ATOM	2955	CD1	PHE	D	17	58.315	25.068	11.092	1.00	34.82	C
ATOM	2956	CD2	PHE	D	17	57.274	23.001	10.482	1.00	34.55	C
ATOM	2957	CE1	PHE	D	17	57.902	25.643	9.879	1.00	34.72	C
ATOM	2958	CE2	PHE	D	17	56.856	23.561	9.271	1.00	34.88	C
ATOM	2959	CZ	PHE	D	17	57.173	24.888	8.969	1.00	34.53	C
ATOM	2960	N	LYS	D	18	55.931	25.087	13.651	1.00	36.16	N
ATOM	2961	CA	LYS	D	18	55.465	26.451	13.919	1.00	35.93	C
ATOM	2962	C	LYS	D	18	54.863	26.648	15.307	1.00	36.04	C
ATOM	2963	O	LYS	D	18	54.742	27.773	15.782	1.00	35.87	O
ATOM	2964	CB	LYS	D	18	54.411	26.861	12.887	1.00	36.04	C
ATOM	2965	CG	LYS	D	18	54.918	27.006	11.464	1.00	37.00	C
ATOM	2966	CD	LYS	D	18	53.914	27.766	10.608	1.00	38.12	C
ATOM	2967	CE	LYS	D	18	52.666	26.940	10.305	1.00	38.98	C

Table 3

ATOM	2968	NZ	LYS	D	18	52.845	26.089	9.097	1.00	38.63	N
ATOM	2969	N	ASP	D	19	54.466	25.556	15.951	1.00	36.18	N
ATOM	2970	CA	ASP	D	19	53.868	25.639	17.276	1.00	35.73	C
ATOM	2971	C	ASP	D	19	54.874	25.897	18.384	1.00	35.80	C
ATOM	2972	O	ASP	D	19	56.032	25.466	18.306	1.00	35.27	O
ATOM	2973	CB	ASP	D	19	53.121	24.347	17.595	1.00	36.20	C
ATOM	2974	CG	ASP	D	19	51.888	24.162	16.735	1.00	36.50	C
ATOM	2975	OD1	ASP	D	19	51.395	23.022	16.662	1.00	35.39	O
ATOM	2976	OD2	ASP	D	19	51.412	25.162	16.143	1.00	37.10	O
ATOM	2977	N	PRO	D	20	54.442	26.616	19.431	1.00	35.60	N
ATOM	2978	CA	PRO	D	20	55.310	26.919	20.572	1.00	35.68	C
ATOM	2979	C	PRO	D	20	55.664	25.610	21.271	1.00	35.52	C
ATOM	2980	O	PRO	D	20	54.985	24.598	21.086	1.00	34.34	O
ATOM	2981	CB	PRO	D	20	54.450	27.854	21.428	1.00	35.65	C
ATOM	2982	CG	PRO	D	20	53.052	27.478	21.060	1.00	36.50	C
ATOM	2983	CD	PRO	D	20	53.137	27.283	19.575	1.00	36.19	C
ATOM	2984	N	LYS	D	21	56.723	25.628	22.073	1.00	35.95	N
ATOM	2985	CA	LYS	D	21	57.174	24.416	22.743	1.00	36.41	C
ATOM	2986	C	LYS	D	21	57.799	24.676	24.090	1.00	36.32	C
ATOM	2987	O	LYS	D	21	58.139	25.811	24.422	1.00	36.96	O
ATOM	2988	CB	LYS	D	21	58.222	23.722	21.870	1.00	36.98	C
ATOM	2989	CG	LYS	D	21	57.658	23.001	20.680	1.00	39.76	C
ATOM	2990	CD	LYS	D	21	58.649	22.944	19.546	1.00	42.45	C
ATOM	2991	CE	LYS	D	21	58.146	22.000	18.458	1.00	44.33	C
ATOM	2992	NZ	LYS	D	21	56.697	22.198	18.191	1.00	44.06	N
ATOM	2993	N	ARG	D	22	57.944	23.610	24.866	1.00	35.71	N
ATOM	2994	CA	ARG	D	22	58.618	23.704	26.145	1.00	36.21	C
ATOM	2995	C	ARG	D	22	59.935	22.992	25.851	1.00	35.14	C
ATOM	2996	O	ARG	D	22	59.956	22.033	25.081	1.00	35.57	O
ATOM	2997	CB	ARG	D	22	57.877	22.941	27.246	1.00	37.73	C
ATOM	2998	CG	ARG	D	22	56.414	23.305	27.477	1.00	41.03	C
ATOM	2999	CD	ARG	D	22	55.986	22.704	28.804	1.00	43.60	C
ATOM	3000	NE	ARG	D	22	54.571	22.353	28.919	1.00	46.77	N
ATOM	3001	CZ	ARG	D	22	53.568	23.221	29.012	1.00	48.46	C
ATOM	3002	NH1	ARG	D	22	53.800	24.533	28.993	1.00	49.57	N
ATOM	3003	NH2	ARG	D	22	52.328	22.771	29.169	1.00	48.22	N
ATOM	3004	N	LEU	D	23	61.030	23.470	26.423	1.00	34.08	N
ATOM	3005	CA	LEU	D	23	62.327	22.822	26.234	1.00	32.93	C
ATOM	3006	C	LEU	D	23	62.703	22.179	27.556	1.00	32.48	C
ATOM	3007	O	LEU	D	23	63.053	22.865	28.514	1.00	31.86	O
ATOM	3008	CB	LEU	D	23	63.401	23.832	25.826	1.00	32.07	C
ATOM	3009	CG	LEU	D	23	63.322	24.421	24.417	1.00	33.42	C
ATOM	3010	CD1	LEU	D	23	64.358	25.525	24.263	1.00	32.81	C
ATOM	3011	CD2	LEU	D	23	63.541	23.314	23.382	1.00	33.14	C
ATOM	3012	N	TYR	D	24	62.621	20.855	27.590	1.00	32.58	N
ATOM	3013	CA	TYR	D	24	62.927	20.072	28.771	1.00	31.77	C
ATOM	3014	C	TYR	D	24	64.417	19.700	28.834	1.00	32.21	C
ATOM	3015	O	TYR	D	24	64.983	19.178	27.868	1.00	32.68	O
ATOM	3016	CB	TYR	D	24	62.042	18.828	28.749	1.00	30.62	C
ATOM	3017	CG	TYR	D	24	62.473	17.713	29.668	1.00	30.23	C
ATOM	3018	CD1	TYR	D	24	63.520	16.864	29.321	1.00	28.85	C
ATOM	3019	CD2	TYR	D	24	61.810	17.483	30.870	1.00	29.46	C
ATOM	3020	CE1	TYR	D	24	63.893	15.804	30.147	1.00	28.77	C
ATOM	3021	CE2	TYR	D	24	62.175	16.433	31.702	1.00	29.39	C
ATOM	3022	CZ	TYR	D	24	63.217	15.593	31.331	1.00	28.77	C
ATOM	3023	OH	TYR	D	24	63.559	14.538	32.141	1.00	27.74	O
ATOM	3024	N	CYS	D	25	65.051	19.966	29.972	1.00	32.20	N
ATOM	3025	CA	CYS	D	25	66.467	19.642	30.133	1.00	32.62	C
ATOM	3026	C	CYS	D	25	66.643	18.290	30.822	1.00	33.02	C
ATOM	3027	O	CYS	D	25	66.117	18.059	31.915	1.00	32.11	O
ATOM	3028	CB	CYS	D	25	67.187	20.723	30.946	1.00	32.95	C
ATOM	3029	SG	CYS	D	25	69.001	20.532	30.972	1.00	31.97	S
ATOM	3030	N	LYS	D	26	67.382	17.400	30.169	1.00	34.05	N
ATOM	3031	CA	LYS	D	26	67.637	16.076	30.710	1.00	35.40	C
ATOM	3032	C	LYS	D	26	68.281	16.180	32.089	1.00	36.05	C
ATOM	3033	O	LYS	D	26	68.062	15.331	32.955	1.00	36.30	O

Table 3

ATOM	3034	CB	LYS	D	26	68.559	15.281	29.785	1.00	35.59	C
ATOM	3035	CG	LYS	D	26	68.716	13.828	30.221	1.00	36.96	C
ATOM	3036	CD	LYS	D	26	69.634	13.048	29.297	1.00	37.22	C
ATOM	3037	CE	LYS	D	26	69.752	11.603	29.752	1.00	38.52	C
ATOM	3038	NZ	LYS	D	26	70.750	10.852	28.930	1.00	39.15	N
ATOM	3039	N	ASN	D	27	69.074	17.228	32.291	1.00	36.41	N
ATOM	3040	CA	ASN	D	27	69.750	17.436	33.568	1.00	36.38	C
ATOM	3041	C	ASN	D	27	68.740	17.901	34.617	1.00	36.08	C
ATOM	3042	O	ASN	D	27	68.336	19.066	34.615	1.00	35.53	O
ATOM	3043	CB	ASN	D	27	70.852	18.491	33.408	1.00	36.79	C
ATOM	3044	CG	ASN	D	27	71.929	18.379	34.482	1.00	37.99	C
ATOM	3045	OD1	ASN	D	27	72.675	19.333	34.746	1.00	37.72	O
ATOM	3046	ND2	ASN	D	27	72.024	17.207	35.096	1.00	37.35	N
ATOM	3047	N	GLY	D	28	68.326	16.989	35.500	1.00	35.93	N
ATOM	3048	CA	GLY	D	28	67.368	17.340	36.539	1.00	35.08	C
ATOM	3049	C	GLY	D	28	65.898	17.394	36.123	1.00	35.49	C
ATOM	3050	O	GLY	D	28	65.009	17.399	36.971	1.00	34.34	O
ATOM	3051	N	GLY	D	29	65.630	17.443	34.825	1.00	35.76	N
ATOM	3052	CA	GLY	D	29	64.252	17.489	34.373	1.00	36.75	C
ATOM	3053	C	GLY	D	29	63.562	18.835	34.551	1.00	37.21	C
ATOM	3054	O	GLY	D	29	62.400	18.880	34.942	1.00	37.24	O
ATOM	3055	N	PHE	D	30	64.269	19.928	34.276	1.00	37.20	N
ATOM	3056	CA	PHE	D	30	63.694	21.270	34.391	1.00	37.97	C
ATOM	3057	C	PHE	D	30	63.298	21.800	33.010	1.00	38.10	C
ATOM	3058	O	PHE	D	30	63.945	21.496	32.009	1.00	38.11	O
ATOM	3059	CB	PHE	D	30	64.695	22.287	34.963	1.00	37.64	C
ATOM	3060	CG	PHE	D	30	65.278	21.923	36.296	1.00	37.90	C
ATOM	3061	CD1	PHE	D	30	66.540	21.334	36.381	1.00	37.94	C
ATOM	3062	CD2	PHE	D	30	64.603	22.239	37.474	1.00	38.44	C
ATOM	3063	CE1	PHE	D	30	67.126	21.074	37.626	1.00	37.98	C
ATOM	3064	CE2	PHE	D	30	65.175	21.983	38.720	1.00	37.36	C
ATOM	3065	CZ	PHE	D	30	66.440	21.401	38.795	1.00	38.16	C
ATOM	3066	N	PHE	D	31	62.246	22.609	32.968	1.00	37.80	N
ATOM	3067	CA	PHE	D	31	61.799	23.226	31.726	1.00	37.80	C
ATOM	3068	C	PHE	D	31	62.462	24.603	31.677	1.00	38.08	C
ATOM	3069	O	PHE	D	31	62.414	25.343	32.661	1.00	37.41	O
ATOM	3070	CB	PHE	D	31	60.276	23.415	31.723	1.00	37.75	C
ATOM	3071	CG	PHE	D	31	59.493	22.134	31.584	1.00	37.85	C
ATOM	3072	CD1	PHE	D	31	59.590	21.369	30.431	1.00	37.09	C
ATOM	3073	CD2	PHE	D	31	58.645	21.707	32.601	1.00	38.01	C
ATOM	3074	CE1	PHE	D	31	58.854	20.196	30.285	1.00	37.44	C
ATOM	3075	CE2	PHE	D	31	57.901	20.528	32.465	1.00	38.66	C
ATOM	3076	CZ	PHE	D	31	58.007	19.774	31.301	1.00	38.10	C
ATOM	3077	N	LEU	D	32	63.085	24.942	30.550	1.00	38.06	N
ATOM	3078	CA	LEU	D	32	63.733	26.244	30.416	1.00	38.41	C
ATOM	3079	C	LEU	D	32	62.678	27.326	30.623	1.00	39.14	C
ATOM	3080	O	LEU	D	32	61.622	27.295	29.991	1.00	39.29	O
ATOM	3081	CB	LEU	D	32	64.357	26.399	29.029	1.00	37.69	C
ATOM	3082	CG	LEU	D	32	65.257	27.630	28.835	1.00	37.38	C
ATOM	3083	CD1	LEU	D	32	66.368	27.640	29.887	1.00	36.99	C
ATOM	3084	CD2	LEU	D	32	65.856	27.600	27.445	1.00	36.24	C
ATOM	3085	N	ARG	D	33	62.965	28.281	31.501	1.00	39.62	N
ATOM	3086	CA	ARG	D	33	62.019	29.355	31.799	1.00	40.13	C
ATOM	3087	C	ARG	D	33	62.569	30.759	31.540	1.00	40.47	C
ATOM	3088	O	ARG	D	33	63.702	31.069	31.908	1.00	40.15	O
ATOM	3089	CB	ARG	D	33	61.564	29.247	33.261	1.00	39.82	C
ATOM	3090	CG	ARG	D	33	60.565	30.316	33.681	1.00	40.22	C
ATOM	3091	CD	ARG	D	33	59.896	29.988	35.013	1.00	39.80	C
ATOM	3092	NE	ARG	D	33	60.834	29.991	36.131	1.00	40.49	N
ATOM	3093	CZ	ARG	D	33	60.468	29.978	37.413	1.00	41.41	C
ATOM	3094	NH1	ARG	D	33	59.175	29.959	37.732	1.00	41.64	N
ATOM	3095	NH2	ARG	D	33	61.386	29.991	38.378	1.00	39.88	N
ATOM	3096	N	ILE	D	34	61.758	31.602	30.905	1.00	41.17	N
ATOM	3097	CA	ILE	D	34	62.158	32.976	30.610	1.00	42.90	C
ATOM	3098	C	ILE	D	34	61.194	33.940	31.309	1.00	44.48	C
ATOM	3099	O	ILE	D	34	60.048	34.114	30.885	1.00	44.51	O

Table 3

ATOM	3100	CB	ILE	D	34	62.159	33.243	29.082	1.00	42.66	C
ATOM	3101	CG1	ILE	D	34	63.213	32.362	28.399	1.00	42.04	C
ATOM	3102	CG2	ILE	D	34	62.453	34.701	28.800	1.00	41.35	C
ATOM	3103	CD1	ILE	D	34	63.256	32.507	26.889	1.00	41.47	C
ATOM	3104	N	HIS	D	35	61.676	34.550	32.389	1.00	46.13	N
ATOM	3105	CA	HIS	D	35	60.890	35.482	33.193	1.00	48.17	C
ATOM	3106	C	HIS	D	35	60.651	36.828	32.514	1.00	49.27	C
ATOM	3107	O	HIS	D	35	61.449	37.273	31.687	1.00	49.41	O
ATOM	3108	CB	HIS	D	35	61.569	35.702	34.553	1.00	47.48	C
ATOM	3109	N	PRO	D	36	59.538	37.498	32.865	1.00	50.83	N
ATOM	3110	CA	PRO	D	36	59.169	38.804	32.300	1.00	51.53	C
ATOM	3111	C	PRO	D	36	60.272	39.859	32.420	1.00	52.04	C
ATOM	3112	O	PRO	D	36	60.417	40.713	31.543	1.00	52.40	O
ATOM	3113	CB	PRO	D	36	57.926	39.186	33.100	1.00	52.02	C
ATOM	3114	CG	PRO	D	36	57.314	37.859	33.428	1.00	51.73	C
ATOM	3115	CD	PRO	D	36	58.517	37.038	33.825	1.00	51.06	C
ATOM	3116	N	ASP	D	37	61.045	39.795	33.502	1.00	52.30	N
ATOM	3117	CA	ASP	D	37	62.124	40.746	33.738	1.00	52.98	C
ATOM	3118	C	ASP	D	37	63.442	40.350	33.082	1.00	52.81	C
ATOM	3119	O	ASP	D	37	64.467	41.003	33.298	1.00	52.83	O
ATOM	3120	CB	ASP	D	37	62.349	40.925	35.240	1.00	54.57	C
ATOM	3121	CG	ASP	D	37	62.536	39.607	35.956	1.00	56.00	C
ATOM	3122	OD1	ASP	D	37	61.538	38.866	36.088	1.00	57.43	O
ATOM	3123	OD2	ASP	D	37	63.675	39.307	36.376	1.00	56.89	O
ATOM	3124	N	GLY	D	38	63.427	39.270	32.307	1.00	52.15	N
ATOM	3125	CA	GLY	D	38	64.638	38.849	31.626	1.00	51.24	C
ATOM	3126	C	GLY	D	38	65.546	37.828	32.292	1.00	50.73	C
ATOM	3127	O	GLY	D	38	66.608	37.512	31.749	1.00	50.65	O
ATOM	3128	N	ARG	D	39	65.174	37.308	33.457	1.00	49.97	N
ATOM	3129	CA	ARG	D	39	66.029	36.309	34.093	1.00	49.69	C
ATOM	3130	C	ARG	D	39	65.758	34.932	33.492	1.00	48.51	C
ATOM	3131	O	ARG	D	39	64.637	34.643	33.061	1.00	48.43	O
ATOM	3132	CB	ARG	D	39	65.818	36.274	35.611	1.00	51.28	C
ATOM	3133	CG	ARG	D	39	66.829	37.120	36.384	1.00	54.09	C
ATOM	3134	CD	ARG	D	39	66.597	37.087	37.895	1.00	55.79	C
ATOM	3135	NE	ARG	D	39	65.250	37.530	38.246	1.00	58.04	N
ATOM	3136	CZ	ARG	D	39	64.186	36.733	38.292	1.00	58.99	C
ATOM	3137	NH1	ARG	D	39	62.997	37.226	38.614	1.00	59.48	N
ATOM	3138	NH2	ARG	D	39	64.311	35.437	38.038	1.00	60.22	N
ATOM	3139	N	VAL	D	40	66.786	34.091	33.447	1.00	46.54	N
ATOM	3140	CA	VAL	D	40	66.634	32.751	32.890	1.00	45.12	C
ATOM	3141	C	VAL	D	40	67.030	31.647	33.866	1.00	44.62	C
ATOM	3142	O	VAL	D	40	68.118	31.670	34.443	1.00	44.40	O
ATOM	3143	CB	VAL	D	40	67.471	32.571	31.596	1.00	44.81	C
ATOM	3144	CG1	VAL	D	40	67.383	31.128	31.114	1.00	43.98	C
ATOM	3145	CG2	VAL	D	40	66.973	33.508	30.510	1.00	44.13	C
ATOM	3146	N	ASP	D	41	66.134	30.680	34.039	1.00	43.92	N
ATOM	3147	CA	ASP	D	41	66.370	29.534	34.916	1.00	43.96	C
ATOM	3148	C	ASP	D	41	65.503	28.355	34.474	1.00	44.09	C
ATOM	3149	O	ASP	D	41	64.914	28.379	33.394	1.00	43.67	O
ATOM	3150	CB	ASP	D	41	66.066	29.881	36.389	1.00	43.15	C
ATOM	3151	CG	ASP	D	41	64.581	30.180	36.653	1.00	43.98	C
ATOM	3152	OD1	ASP	D	41	64.233	30.406	37.840	1.00	43.89	O
ATOM	3153	OD2	ASP	D	41	63.765	30.191	35.703	1.00	41.66	O
ATOM	3154	N	GLY	D	42	65.427	27.334	35.321	1.00	44.01	N
ATOM	3155	CA	GLY	D	42	64.630	26.167	35.011	1.00	44.61	C
ATOM	3156	C	GLY	D	42	63.653	25.867	36.130	1.00	45.13	C
ATOM	3157	O	GLY	D	42	63.891	26.232	37.274	1.00	45.40	O
ATOM	3158	N	VAL	D	43	62.553	25.200	35.796	1.00	45.41	N
ATOM	3159	CA	VAL	D	43	61.531	24.852	36.771	1.00	45.73	C
ATOM	3160	C	VAL	D	43	60.873	23.534	36.359	1.00	46.34	C
ATOM	3161	O	VAL	D	43	60.838	23.196	35.174	1.00	46.69	O
ATOM	3162	CB	VAL	D	43	60.469	25.995	36.875	1.00	45.11	C
ATOM	3163	CG1	VAL	D	43	59.625	26.067	35.609	1.00	43.89	C
ATOM	3164	CG2	VAL	D	43	59.596	25.789	38.092	1.00	45.21	C
ATOM	3165	N	ARG	D	44	60.359	22.795	37.339	1.00	47.07	N

Table 3

ATOM	3166	CA	ARG	D	44	59.721	21.504	37.093	1.00	48.22	C
ATOM	3167	C	ARG	D	44	58.216	21.574	36.810	1.00	49.00	C
ATOM	3168	O	ARG	D	44	57.660	20.680	36.169	1.00	49.13	O
ATOM	3169	CB	ARG	D	44	59.947	20.570	38.296	1.00	48.25	C
ATOM	3170	CG	ARG	D	44	61.396	20.125	38.554	1.00	48.15	C
ATOM	3171	CD	ARG	D	44	61.425	19.003	39.600	1.00	47.68	C
ATOM	3172	NE	ARG	D	44	62.689	18.262	39.650	1.00	48.47	N
ATOM	3173	CZ	ARG	D	44	63.846	18.740	40.112	1.00	48.64	C
ATOM	3174	NH1	ARG	D	44	63.932	19.977	40.579	1.00	49.00	N
ATOM	3175	NH2	ARG	D	44	64.928	17.972	40.109	1.00	49.22	N
ATOM	3176	N	GLU	D	45	57.557	22.627	37.289	1.00	49.76	N
ATOM	3177	CA	GLU	D	45	56.109	22.773	37.106	1.00	50.30	C
ATOM	3178	C	GLU	D	45	55.680	23.011	35.656	1.00	50.71	C
ATOM	3179	O	GLU	D	45	55.824	24.112	35.121	1.00	50.47	O
ATOM	3180	CB	GLU	D	45	55.577	23.905	37.987	1.00	49.49	C
ATOM	3181	N	LYS	D	46	55.135	21.970	35.036	1.00	51.11	C
ATOM	3182	CA	LYS	D	46	54.685	22.040	33.652	1.00	51.83	C
ATOM	3183	C	LYS	D	46	53.616	23.116	33.430	1.00	52.71	C
ATOM	3184	O	LYS	D	46	53.309	23.470	32.289	1.00	52.71	O
ATOM	3185	CB	LYS	D	46	54.140	20.677	33.219	1.00	50.96	C
ATOM	3186	N	SER	D	47	53.057	23.641	34.517	1.00	53.19	C
ATOM	3187	CA	SER	D	47	52.015	24.657	34.418	1.00	53.48	C
ATOM	3188	C	SER	D	47	52.522	26.092	34.336	1.00	52.94	C
ATOM	3189	O	SER	D	47	51.762	26.996	33.983	1.00	52.87	O
ATOM	3190	CB	SER	D	47	51.048	24.543	35.601	1.00	54.05	C
ATOM	3191	OG	SER	D	47	51.734	24.698	36.833	1.00	56.01	O
ATOM	3192	N	ASP	D	48	53.794	26.310	34.664	1.00	52.50	N
ATOM	3193	CA	ASP	D	48	54.362	27.657	34.621	1.00	51.66	C
ATOM	3194	C	ASP	D	48	54.161	28.310	33.254	1.00	50.90	C
ATOM	3195	O	ASP	D	48	54.530	27.745	32.223	1.00	50.75	O
ATOM	3196	CB	ASP	D	48	55.858	27.629	34.961	1.00	51.83	C
ATOM	3197	N	PRO	D	49	53.567	29.516	33.232	1.00	50.14	C
ATOM	3198	CA	PRO	D	49	53.306	30.263	31.996	1.00	49.15	C
ATOM	3199	C	PRO	D	49	54.550	30.820	31.305	1.00	48.42	C
ATOM	3200	O	PRO	D	49	54.472	31.288	30.167	1.00	48.13	O
ATOM	3201	CB	PRO	D	49	52.373	31.380	32.457	1.00	49.52	C
ATOM	3202	CG	PRO	D	49	52.857	31.657	33.855	1.00	49.18	C
ATOM	3203	CD	PRO	D	49	53.052	30.251	34.406	1.00	50.05	C
ATOM	3204	N	HIS	D	50	55.696	30.773	31.981	1.00	46.75	N
ATOM	3205	CA	HIS	D	50	56.916	31.304	31.383	1.00	45.88	C
ATOM	3206	C	HIS	D	50	57.874	30.272	30.765	1.00	44.34	C
ATOM	3207	O	HIS	D	50	59.045	30.570	30.528	1.00	44.23	O
ATOM	3208	CB	HIS	D	50	57.638	32.185	32.405	1.00	45.79	C
ATOM	3209	CG	HIS	D	50	56.829	33.371	32.833	1.00	47.26	C
ATOM	3210	ND1	HIS	D	50	56.501	34.395	31.970	1.00	47.30	N
ATOM	3211	CD2	HIS	D	50	56.213	33.657	34.005	1.00	47.36	C
ATOM	3212	CE1	HIS	D	50	55.715	35.257	32.589	1.00	47.33	C
ATOM	3213	NE2	HIS	D	50	55.525	34.833	33.824	1.00	47.72	N
ATOM	3214	N	ILE	D	51	57.370	29.068	30.499	1.00	42.18	N
ATOM	3215	CA	ILE	D	51	58.177	28.016	29.871	1.00	41.06	C
ATOM	3216	C	ILE	D	51	57.698	27.771	28.442	1.00	40.46	C
ATOM	3217	O	ILE	D	51	58.264	26.950	27.721	1.00	40.26	O
ATOM	3218	CB	ILE	D	51	58.097	26.665	30.636	1.00	39.75	C
ATOM	3219	CG1	ILE	D	51	56.647	26.181	30.697	1.00	38.79	C
ATOM	3220	CG2	ILE	D	51	58.675	26.818	32.030	1.00	38.97	C
ATOM	3221	CD1	ILE	D	51	56.457	24.914	31.485	1.00	37.44	C
ATOM	3222	N	LYS	D	52	56.639	28.471	28.043	1.00	39.78	N
ATOM	3223	CA	LYS	D	52	56.103	28.345	26.691	1.00	38.80	C
ATOM	3224	C	LYS	D	52	56.999	29.181	25.783	1.00	37.62	C
ATOM	3225	O	LYS	D	52	57.023	30.399	25.881	1.00	37.88	O
ATOM	3226	CB	LYS	D	52	54.663	28.851	26.649	1.00	39.06	C
ATOM	3227	CG	LYS	D	52	54.076	28.941	25.254	1.00	41.38	C
ATOM	3228	CD	LYS	D	52	52.551	29.006	25.306	1.00	43.38	C
ATOM	3229	CE	LYS	D	52	51.956	29.144	23.910	1.00	44.51	C
ATOM	3230	NZ	LYS	D	52	50.463	29.058	23.940	1.00	45.28	N
ATOM	3231	N	LEU	D	53	57.740	28.516	24.903	1.00	35.77	N

Table 3

ATOM	3232	CA	LEU	D	53	58.677	29.198	24.023	1.00	34.05	C
ATOM	3233	C	LEU	D	53	58.325	29.103	22.546	1.00	33.69	C
ATOM	3234	O	LEU	D	53	57.587	28.220	22.120	1.00	33.77	O
ATOM	3235	CB	LEU	D	53	60.081	28.628	24.246	1.00	32.10	C
ATOM	3236	CG	LEU	D	53	60.438	28.457	25.722	1.00	32.46	C
ATOM	3237	CD1	LEU	D	53	61.812	27.799	25.873	1.00	30.90	C
ATOM	3238	CD2	LEU	D	53	60.396	29.827	26.405	1.00	31.78	C
ATOM	3239	N	GLN	D	54	58.859	30.030	21.763	1.00	32.79	N
ATOM	3240	CA	GLN	D	54	58.614	30.018	20.336	1.00	32.41	C
ATOM	3241	C	GLN	D	54	59.953	30.037	19.593	1.00	32.05	C
ATOM	3242	O	GLN	D	54	60.705	31.018	19.659	1.00	31.21	O
ATOM	3243	CB	GLN	D	54	57.748	31.215	19.920	1.00	31.73	C
ATOM	3244	CG	GLN	D	54	57.428	31.249	18.426	1.00	33.58	C
ATOM	3245	CD	GLN	D	54	56.543	30.082	17.970	1.00	35.55	C
ATOM	3246	OE1	GLN	D	54	55.339	30.051	18.246	1.00	36.89	O
ATOM	3247	NE2	GLN	D	54	57.144	29.116	17.272	1.00	35.05	N
ATOM	3248	N	LEU	D	55	60.247	28.940	18.896	1.00	31.92	N
ATOM	3249	CA	LEU	D	55	61.481	28.824	18.121	1.00	31.53	C
ATOM	3250	C	LEU	D	55	61.228	29.362	16.717	1.00	30.93	C
ATOM	3251	O	LEU	D	55	60.121	29.248	16.201	1.00	30.58	O
ATOM	3252	CB	LEU	D	55	61.910	27.355	18.008	1.00	32.24	C
ATOM	3253	CG	LEU	D	55	62.556	26.584	19.164	1.00	32.83	C
ATOM	3254	CD1	LEU	D	55	64.047	26.722	19.085	1.00	33.91	C
ATOM	3255	CD2	LEU	D	55	62.029	27.063	20.506	1.00	31.56	C
ATOM	3256	N	GLN	D	56	62.252	29.944	16.106	1.00	30.47	N
ATOM	3257	CA	GLN	D	56	62.141	30.473	14.749	1.00	30.30	C
ATOM	3258	C	GLN	D	56	63.520	30.438	14.088	1.00	30.10	C
ATOM	3259	O	GLN	D	56	64.496	30.946	14.636	1.00	29.40	O
ATOM	3260	CB	GLN	D	56	61.587	31.910	14.768	1.00	31.17	C
ATOM	3261	CG	GLN	D	56	61.602	32.646	13.415	1.00	31.41	C
ATOM	3262	CD	GLN	D	56	60.679	32.024	12.367	1.00	32.89	C
ATOM	3263	OE1	GLN	D	56	59.470	31.897	12.585	1.00	32.67	O
ATOM	3264	NE2	GLN	D	56	61.247	31.643	11.221	1.00	31.40	N
ATOM	3265	N	ALA	D	57	63.596	29.822	12.912	1.00	30.59	N
ATOM	3266	CA	ALA	D	57	64.863	29.722	12.191	1.00	31.46	C
ATOM	3267	C	ALA	D	57	65.208	31.047	11.514	1.00	31.50	C
ATOM	3268	O	ALA	D	57	64.337	31.689	10.915	1.00	31.96	O
ATOM	3269	CB	ALA	D	57	64.787	28.608	11.148	1.00	31.14	C
ATOM	3270	N	GLU	D	58	66.472	31.455	11.612	1.00	31.48	N
ATOM	3271	CA	GLU	D	58	66.937	32.708	11.003	1.00	31.93	C
ATOM	3272	C	GLU	D	58	67.651	32.352	9.704	1.00	31.62	C
ATOM	3273	O	GLU	D	58	67.669	33.118	8.743	1.00	32.03	O
ATOM	3274	CB	GLU	D	58	67.902	33.423	11.950	1.00	31.82	C
ATOM	3275	CG	GLU	D	58	68.104	34.897	11.642	1.00	33.93	C
ATOM	3276	CD	GLU	D	58	66.805	35.697	11.682	1.00	33.77	C
ATOM	3277	OE1	GLU	D	58	65.925	35.394	12.509	1.00	33.41	O
ATOM	3278	OE2	GLU	D	58	66.673	36.649	10.891	1.00	36.68	O
ATOM	3279	N	GLU	D	59	68.261	31.174	9.707	1.00	32.39	N
ATOM	3280	CA	GLU	D	59	68.956	30.625	8.552	1.00	33.39	C
ATOM	3281	C	GLU	D	59	69.078	29.123	8.824	1.00	32.60	C
ATOM	3282	O	GLU	D	59	68.781	28.661	9.932	1.00	32.53	O
ATOM	3283	CB	GLU	D	59	70.336	31.275	8.365	1.00	34.87	C
ATOM	3284	CG	GLU	D	59	71.455	30.693	9.205	1.00	38.35	C
ATOM	3285	CD	GLU	D	59	72.766	31.445	9.016	1.00	40.56	C
ATOM	3286	OE1	GLU	D	59	73.170	31.658	7.852	1.00	42.72	O
ATOM	3287	OE2	GLU	D	59	73.394	31.823	10.028	1.00	40.49	O
ATOM	3288	N	ARG	D	60	69.503	28.357	7.826	1.00	32.00	N
ATOM	3289	CA	ARG	D	60	69.611	26.910	7.992	1.00	32.66	C
ATOM	3290	C	ARG	D	60	70.320	26.475	9.280	1.00	31.35	C
ATOM	3291	O	ARG	D	60	71.459	26.856	9.527	1.00	31.20	O
ATOM	3292	CB	ARG	D	60	70.306	26.295	6.768	1.00	33.95	C
ATOM	3293	CG	ARG	D	60	70.378	24.778	6.814	1.00	36.32	C
ATOM	3294	CD	ARG	D	60	70.800	24.196	5.477	1.00	38.66	C
ATOM	3295	NE	ARG	D	60	71.248	22.825	5.636	1.00	42.38	N
ATOM	3296	CZ	ARG	D	60	72.497	22.472	5.930	1.00	43.93	C
ATOM	3297	NH1	ARG	D	60	73.440	23.392	6.083	1.00	44.45	N

Table 3

ATOM	3298	NH2	ARG	D	60	72.795	21.192	6.099	1.00	45.88	
ATOM	3299	N	GLY	D	61	69.628	25.696	10.108	1.00	30.50	N
ATOM	3300	CA	GLY	D	61	70.211	25.213	11.354	1.00	29.35	N
ATOM	3301	C	GLY	D	61	70.450	26.224	12.478	1.00	29.03	C
ATOM	3302	O	GLY	D	61	71.051	25.882	13.491	1.00	28.44	C
ATOM	3303	N	VAL	D	62	69.981	27.459	12.311	1.00	28.42	O
ATOM	3304	CA	VAL	D	62	70.151	28.499	13.319	1.00	27.63	N
ATOM	3305	C	VAL	D	62	68.798	29.040	13.787	1.00	27.82	C
ATOM	3306	O	VAL	D	62	67.971	29.435	12.969	1.00	28.05	C
ATOM	3307	CB	VAL	D	62	70.971	29.674	12.755	1.00	28.71	O
ATOM	3308	CG1	VAL	D	62	71.055	30.802	13.789	1.00	27.45	C
ATOM	3309	CG2	VAL	D	62	72.370	29.183	12.349	1.00	29.28	C
ATOM	3310	N	VAL	D	63	68.580	29.082	15.098	1.00	27.12	C
ATOM	3311	CA	VAL	D	63	67.309	29.568	15.627	1.00	26.23	N
ATOM	3312	C	VAL	D	63	67.416	30.634	16.721	1.00	27.27	C
ATOM	3313	O	VAL	D	63	68.472	30.824	17.342	1.00	26.15	C
ATOM	3314	CB	VAL	D	63	66.472	28.413	16.250	1.00	26.29	O
ATOM	3315	CG1	VAL	D	63	66.320	27.251	15.257	1.00	25.11	C
ATOM	3316	CG2	VAL	D	63	67.135	27.936	17.552	1.00	25.13	C
ATOM	3317	N	SER	D	64	66.295	31.326	16.933	1.00	27.59	C
ATOM	3318	CA	SER	D	64	66.162	32.314	18.003	1.00	28.77	N
ATOM	3319	C	SER	D	64	65.100	31.675	18.897	1.00	28.82	C
ATOM	3320	O	SER	D	64	64.194	31.001	18.398	1.00	29.07	C
ATOM	3321	CB	SER	D	64	65.663	33.662	17.466	1.00	29.15	O
ATOM	3322	OG	SER	D	64	64.344	33.586	16.972	1.00	30.31	C
ATOM	3323	N	ILE	D	65	65.217	31.850	20.206	1.00	29.32	O
ATOM	3324	CA	ILE	D	65	64.256	31.269	21.140	1.00	30.33	N
ATOM	3325	C	ILE	D	65	63.588	32.396	21.941	1.00	31.89	C
ATOM	3326	O	ILE	D	65	64.252	33.113	22.697	1.00	32.70	C
ATOM	3327	CB	ILE	D	65	64.967	30.280	22.087	1.00	29.23	O
ATOM	3328	CG1	ILE	D	65	65.685	29.209	21.262	1.00	29.54	C
ATOM	3329	CG2	ILE	D	65	63.967	29.636	23.018	1.00	29.94	C
ATOM	3330	CD1	ILE	D	65	66.525	28.236	22.086	1.00	28.65	C
ATOM	3331	N	LYS	D	66	62.277	32.544	21.778	1.00	33.04	C
ATOM	3332	CA	LYS	D	66	61.537	33.617	22.439	1.00	34.75	N
ATOM	3333	C	LYS	D	66	60.500	33.186	23.467	1.00	35.49	C
ATOM	3334	O	LYS	D	66	59.659	32.334	23.195	1.00	35.39	C
ATOM	3335	CB	LYS	D	66	60.859	34.481	21.365	1.00	36.40	O
ATOM	3336	CG	LYS	D	66	59.924	35.589	21.865	1.00	38.42	C
ATOM	3337	CD	LYS	D	66	59.419	36.412	20.674	1.00	41.42	C
ATOM	3338	CE	LYS	D	66	58.472	37.543	21.071	1.00	43.03	C
ATOM	3339	NZ	LYS	D	66	57.094	37.064	21.404	1.00	45.12	C
ATOM	3340	N	GLY	D	67	60.573	33.777	24.658	1.00	36.59	N
ATOM	3341	CA	GLY	D	67	59.603	33.471	25.695	1.00	38.30	C
ATOM	3342	C	GLY	D	67	58.311	34.187	25.329	1.00	39.98	C
ATOM	3343	O	GLY	D	67	58.275	35.415	25.269	1.00	39.06	C
ATOM	3344	N	VAL	D	68	57.251	33.428	25.075	1.00	41.48	O
ATOM	3345	CA	VAL	D	68	55.981	34.027	24.679	1.00	43.26	N
ATOM	3346	C	VAL	D	68	55.437	35.015	25.707	1.00	43.98	C
ATOM	3347	O	VAL	D	68	55.105	36.145	25.356	1.00	44.25	C
ATOM	3348	CB	VAL	D	68	54.903	32.942	24.392	1.00	43.86	O
ATOM	3349	CG1	VAL	D	68	53.635	33.594	23.829	1.00	43.37	C
ATOM	3350	CG2	VAL	D	68	55.447	31.920	23.400	1.00	43.79	C
ATOM	3351	N	SER	D	69	55.358	34.599	26.970	1.00	44.50	C
ATOM	3352	CA	SER	D	69	54.843	35.468	28.033	1.00	45.32	N
ATOM	3353	C	SER	D	69	55.714	36.707	28.248	1.00	45.20	C
ATOM	3354	O	SER	D	69	55.242	37.840	28.141	1.00	45.09	C
ATOM	3355	CB	SER	D	69	54.724	34.685	29.348	1.00	44.74	O
ATOM	3356	N	ALA	D	70	56.988	36.477	28.541	1.00	45.20	C
ATOM	3357	CA	ALA	D	70	57.942	37.551	28.772	1.00	44.77	N
ATOM	3358	C	ALA	D	70	58.131	38.448	27.555	1.00	45.28	C
ATOM	3359	O	ALA	D	70	58.580	39.586	27.681	1.00	45.68	C
ATOM	3360	CB	ALA	D	70	59.276	36.957	29.175	1.00	45.09	O
ATOM	3361	N	ASN	D	71	57.790	37.934	26.378	1.00	45.22	C
ATOM	3362	CA	ASN	D	71	57.956	38.679	25.136	1.00	45.09	N
ATOM	3363	C	ASN	D	71	59.421	39.113	24.974	1.00	44.75	C

ATOM	3364	O	ASN	D	71	59.706	40.226	24.510	1.00	44.98	O
ATOM	3365	CB	ASN	D	71	57.032	39.907	25.114	1.00	45.04	C
ATOM	3366	CG	ASN	D	71	56.922	40.529	23.729	1.00	45.44	C
ATOM	3367	OD1	ASN	D	71	56.594	39.849	22.752	1.00	45.94	O
ATOM	3368	ND2	ASN	D	71	57.188	41.826	23.638	1.00	45.88	N
ATOM	3369	N	ARG	D	72	60.341	38.226	25.357	1.00	43.91	N
ATOM	3370	CA	ARG	D	72	61.780	38.485	25.262	1.00	43.19	C
ATOM	3371	C	ARG	D	72	62.500	37.329	24.560	1.00	42.45	C
ATOM	3372	O	ARG	D	72	61.974	36.219	24.498	1.00	42.53	O
ATOM	3373	CB	ARG	D	72	62.381	38.669	26.658	1.00	43.38	C
ATOM	3374	CG	ARG	D	72	62.019	39.969	27.372	1.00	44.06	C
ATOM	3375	CD	ARG	D	72	62.333	39.815	28.854	1.00	45.57	C
ATOM	3376	NE	ARG	D	72	62.160	41.029	29.650	1.00	46.11	N
ATOM	3377	CZ	ARG	D	72	63.090	41.967	29.807	1.00	46.62	C
ATOM	3378	NH1	ARG	D	72	64.271	41.847	29.218	1.00	46.83	N
ATOM	3379	NH2	ARG	D	72	62.853	43.012	30.586	1.00	47.06	N
ATOM	3380	N	TYR	D	73	63.702	37.601	24.046	1.00	40.48	N
ATOM	3381	CA	TYR	D	73	64.516	36.604	23.347	1.00	39.21	C
ATOM	3382	C	TYR	D	73	65.706	36.118	24.165	1.00	38.88	C
ATOM	3383	O	TYR	D	73	66.448	36.918	24.731	1.00	38.06	O
ATOM	3384	CB	TYR	D	73	65.057	37.162	22.027	1.00	38.39	C
ATOM	3385	CG	TYR	D	73	63.982	37.544	21.043	1.00	38.49	C
ATOM	3386	CD1	TYR	D	73	63.326	38.774	21.137	1.00	37.45	C
ATOM	3387	CD2	TYR	D	73	63.599	36.664	20.029	1.00	37.61	C
ATOM	3388	CE1	TYR	D	73	62.316	39.118	20.243	1.00	37.57	C
ATOM	3389	CE2	TYR	D	73	62.590	36.996	19.134	1.00	37.51	C
ATOM	3390	CZ	TYR	D	73	61.953	38.223	19.245	1.00	37.70	C
ATOM	3391	OH	TYR	D	73	60.957	38.543	18.354	1.00	37.47	O
ATOM	3392	N	LEU	D	74	65.888	34.802	24.205	1.00	38.24	N
ATOM	3393	CA	LEU	D	74	67.000	34.185	24.926	1.00	38.30	C
ATOM	3394	C	LEU	D	74	68.311	34.681	24.328	1.00	38.42	C
ATOM	3395	O	LEU	D	74	68.423	34.834	23.118	1.00	38.39	O
ATOM	3396	CB	LEU	D	74	66.941	32.657	24.786	1.00	38.60	C
ATOM	3397	CG	LEU	D	74	67.984	31.822	25.537	1.00	38.75	C
ATOM	3398	CD1	LEU	D	74	67.692	31.874	27.037	1.00	38.70	C
ATOM	3399	CD2	LEU	D	74	67.946	30.384	25.049	1.00	38.55	C
ATOM	3400	N	ALA	D	75	69.301	34.932	25.174	1.00	39.28	N
ATOM	3401	CA	ALA	D	75	70.592	35.402	24.696	1.00	40.08	C
ATOM	3402	C	ALA	D	75	71.714	34.975	25.628	1.00	40.36	C
ATOM	3403	O	ALA	D	75	71.499	34.754	26.820	1.00	38.94	O
ATOM	3404	CB	ALA	D	75	70.580	36.918	24.567	1.00	40.17	C
ATOM	3405	N	MET	D	76	72.912	34.850	25.069	1.00	41.52	N
ATOM	3406	CA	MET	D	76	74.082	34.487	25.853	1.00	43.06	C
ATOM	3407	C	MET	D	76	75.094	35.620	25.732	1.00	44.08	C
ATOM	3408	O	MET	D	76	75.503	35.984	24.628	1.00	43.36	O
ATOM	3409	CB	MET	D	76	74.705	33.194	25.345	1.00	42.43	C
ATOM	3410	CG	MET	D	76	75.868	32.738	26.195	1.00	42.51	C
ATOM	3411	SD	MET	D	76	76.653	31.282	25.525	1.00	43.26	S
ATOM	3412	CE	MET	D	76	75.417	30.042	25.906	1.00	42.34	C
ATOM	3413	N	LYS	D	77	75.487	36.167	26.877	1.00	45.76	N
ATOM	3414	CA	LYS	D	77	76.437	37.272	26.941	1.00	47.47	C
ATOM	3415	C	LYS	D	77	77.891	36.817	26.796	1.00	48.42	C
ATOM	3416	O	LYS	D	77	78.186	35.619	26.823	1.00	47.92	O
ATOM	3417	CB	LYS	D	77	76.246	38.013	28.266	1.00	48.92	C
ATOM	3418	CG	LYS	D	77	74.901	38.733	28.408	1.00	49.43	C
ATOM	3419	CD	LYS	D	77	75.008	40.158	27.884	1.00	51.25	C
ATOM	3420	CE	LYS	D	77	73.707	40.920	28.072	1.00	52.60	C
ATOM	3421	NZ	LYS	D	77	73.836	42.337	27.620	1.00	53.85	N
ATOM	3422	N	GLU	D	78	78.794	37.785	26.648	1.00	49.49	N
ATOM	3423	CA	GLU	D	78	80.219	37.508	26.488	1.00	50.47	C
ATOM	3424	C	GLU	D	78	80.847	36.716	27.641	1.00	51.20	C
ATOM	3425	O	GLU	D	78	81.797	35.967	27.428	1.00	51.18	O
ATOM	3426	CB	GLU	D	78	80.988	38.819	26.290	1.00	50.83	C
ATOM	3427	N	ASP	D	79	80.325	36.875	28.855	1.00	51.96	N
ATOM	3428	CA	ASP	D	79	80.867	36.156	30.011	1.00	52.63	C
ATOM	3429	C	ASP	D	79	80.228	34.778	30.166	1.00	52.67	C

Table 3

ATOM	3430	O	ASP	D	79	80.521	34.053	31.116	1.00	53.01	O
ATOM	3431	CB	ASP	D	79	80.646	36.957	31.300	1.00	52.97	C
ATOM	3432	CG	ASP	D	79	79.177	37.145	31.622	1.00	53.36	C
ATOM	3433	OD1	ASP	D	79	78.861	37.653	32.718	1.00	53.30	O
ATOM	3434	OD2	ASP	D	79	78.334	36.788	30.772	1.00	53.86	O
ATOM	3435	N	GLY	D	80	79.344	34.427	29.237	1.00	52.19	N
ATOM	3436	CA	GLY	D	80	78.691	33.130	29.298	1.00	51.48	C
ATOM	3437	C	GLY	D	80	77.404	33.082	30.105	1.00	50.93	C
ATOM	3438	O	GLY	D	80	76.886	32.000	30.383	1.00	50.90	O
ATOM	3439	N	ARG	D	81	76.875	34.243	30.480	1.00	50.15	N
ATOM	3440	CA	ARG	D	81	75.640	34.286	31.257	1.00	49.57	C
ATOM	3441	C	ARG	D	81	74.415	34.294	30.344	1.00	49.04	C
ATOM	3442	O	ARG	D	81	74.467	34.799	29.222	1.00	48.59	O
ATOM	3443	CB	ARG	D	81	75.622	35.528	32.161	1.00	49.50	C
ATOM	3444	N	LEU	D	82	73.310	33.732	30.824	1.00	48.27	N
ATOM	3445	CA	LEU	D	82	72.083	33.700	30.031	1.00	47.90	C
ATOM	3446	C	LEU	D	82	71.065	34.728	30.517	1.00	48.39	C
ATOM	3447	O	LEU	D	82	70.910	34.940	31.722	1.00	48.80	O
ATOM	3448	CB	LEU	D	82	71.436	32.309	30.081	1.00	46.28	C
ATOM	3449	CG	LEU	D	82	72.140	31.090	29.482	1.00	45.38	C
ATOM	3450	CD1	LEU	D	82	71.198	29.896	29.554	1.00	44.72	C
ATOM	3451	CD2	LEU	D	82	72.525	31.357	28.035	1.00	45.05	C
ATOM	3452	N	LEU	D	83	70.380	35.365	29.572	1.00	48.54	N
ATOM	3453	CA	LEU	D	83	69.351	36.349	29.888	1.00	49.02	C
ATOM	3454	C	LEU	D	83	68.410	36.479	28.690	1.00	49.02	C
ATOM	3455	O	LEU	D	83	68.683	35.925	27.628	1.00	49.46	O
ATOM	3456	CB	LEU	D	83	69.979	37.705	30.225	1.00	49.68	C
ATOM	3457	CG	LEU	D	83	70.659	38.558	29.145	1.00	50.40	C
ATOM	3458	CD1	LEU	D	83	69.660	39.026	28.091	1.00	49.95	C
ATOM	3459	CD2	LEU	D	83	71.283	39.773	29.829	1.00	51.61	C
ATOM	3460	N	ALA	D	84	67.304	37.202	28.859	1.00	48.84	N
ATOM	3461	CA	ALA	D	84	66.348	37.391	27.767	1.00	48.88	C
ATOM	3462	C	ALA	D	84	66.184	38.876	27.430	1.00	48.68	C
ATOM	3463	O	ALA	D	84	65.796	39.675	28.280	1.00	49.18	O
ATOM	3464	CB	ALA	D	84	65.001	36.773	28.128	1.00	48.28	C
ATOM	3465	N	SER	D	85	66.468	39.233	26.180	1.00	48.45	N
ATOM	3466	CA	SER	D	85	66.383	40.621	25.745	1.00	48.43	C
ATOM	3467	C	SER	D	85	65.078	41.014	25.071	1.00	48.54	C
ATOM	3468	O	SER	D	85	64.424	40.206	24.403	1.00	48.35	O
ATOM	3469	CB	SER	D	85	67.543	40.961	24.815	1.00	47.61	C
ATOM	3470	OG	SER	D	85	67.471	40.180	23.646	1.00	48.73	O
ATOM	3471	N	LYS	D	86	64.714	42.280	25.252	1.00	48.04	N
ATOM	3472	CA	LYS	D	86	63.493	42.814	24.675	1.00	47.48	C
ATOM	3473	C	LYS	D	86	63.627	42.857	23.160	1.00	47.38	C
ATOM	3474	O	LYS	D	86	62.678	42.541	22.431	1.00	47.31	O
ATOM	3475	CB	LYS	D	86	63.219	44.219	25.216	1.00	47.13	C
ATOM	3476	N	SER	D	87	64.811	43.236	22.689	1.00	46.35	N
ATOM	3477	CA	SER	D	87	65.062	43.316	21.258	1.00	46.37	C
ATOM	3478	C	SER	D	87	66.134	42.307	20.825	1.00	45.65	C
ATOM	3479	O	SER	D	87	67.060	42.003	21.572	1.00	45.52	O
ATOM	3480	CB	SER	D	87	65.494	44.741	20.888	1.00	47.49	C
ATOM	3481	N	VAL	D	88	66.000	41.807	19.606	1.00	45.23	N
ATOM	3482	CA	VAL	D	88	66.919	40.827	19.049	1.00	44.31	C
ATOM	3483	C	VAL	D	88	68.320	41.370	18.741	1.00	44.05	C
ATOM	3484	O	VAL	D	88	68.455	42.397	18.083	1.00	44.55	O
ATOM	3485	CB	VAL	D	88	66.328	40.238	17.753	1.00	44.15	C
ATOM	3486	CG1	VAL	D	88	67.261	39.174	17.182	1.00	43.40	C
ATOM	3487	CG2	VAL	D	88	64.943	39.660	18.035	1.00	44.10	C
ATOM	3488	N	THR	D	89	69.353	40.677	19.219	1.00	42.84	N
ATOM	3489	CA	THR	D	89	70.739	41.067	18.952	1.00	42.13	C
ATOM	3490	C	THR	D	89	71.487	39.835	18.460	1.00	41.62	C
ATOM	3491	O	THR	D	89	70.918	38.752	18.403	1.00	41.27	O
ATOM	3492	CB	THR	D	89	71.468	41.580	20.203	1.00	41.82	C
ATOM	3493	OG1	THR	D	89	71.848	40.468	21.024	1.00	41.87	O
ATOM	3494	CG2	THR	D	89	70.567	42.513	21.001	1.00	42.55	C
ATOM	3495	N	ASP	D	90	72.761	39.999	18.114	1.00	41.36	N

Table 3

ATOM	3496	CA	ASP	D	90	73.571	38.889	17.616	1.00	41.12	C
ATOM	3497	C	ASP	D	90	73.844	37.802	18.654	1.00	41.18	C
ATOM	3498	O	ASP	D	90	74.408	36.755	18.332	1.00	42.37	O
ATOM	3499	CB	ASP	D	90	74.907	39.412	17.064	1.00	41.11	C
ATOM	3500	CG	ASP	D	90	75.656	40.326	18.051	1.00	41.39	C
ATOM	3501	OD1	ASP	D	90	75.268	40.402	19.239	1.00	40.75	O
ATOM	3502	OD2	ASP	D	90	76.651	40.965	17.631	1.00	39.90	O
ATOM	3503	N	GLU	D	91	73.445	38.045	19.897	1.00	40.48	N
ATOM	3504	CA	GLU	D	91	73.662	37.072	20.965	1.00	40.42	C
ATOM	3505	C	GLU	D	91	72.391	36.250	21.201	1.00	38.92	C
ATOM	3506	O	GLU	D	91	72.300	35.498	22.172	1.00	38.93	O
ATOM	3507	CB	GLU	D	91	74.062	37.788	22.265	1.00	40.64	C
ATOM	3508	CG	GLU	D	91	75.140	38.852	22.089	1.00	41.05	C
ATOM	3509	CD	GLU	D	91	75.549	39.509	23.405	1.00	41.33	C
ATOM	3510	OE1	GLU	D	91	74.670	40.048	24.112	1.00	40.56	O
ATOM	3511	OE2	GLU	D	91	76.755	39.488	23.728	1.00	42.06	O
ATOM	3512	N	CYS	D	92	71.419	36.386	20.305	1.00	37.53	N
ATOM	3513	CA	CYS	D	92	70.155	35.662	20.434	1.00	37.33	C
ATOM	3514	C	CYS	D	92	69.965	34.523	19.428	1.00	37.35	C
ATOM	3515	O	CYS	D	92	68.857	33.998	19.289	1.00	37.11	O
ATOM	3516	CB	CYS	D	92	68.978	36.631	20.300	1.00	37.57	C
ATOM	3517	SG	CYS	D	92	68.952	37.991	21.499	1.00	36.54	S
ATOM	3518	N	PHE	D	93	71.040	34.133	18.742	1.00	36.58	N
ATOM	3519	CA	PHE	D	93	70.973	33.075	17.742	1.00	35.75	C
ATOM	3520	C	PHE	D	93	71.817	31.858	18.128	1.00	35.61	C
ATOM	3521	O	PHE	D	93	72.961	31.994	18.560	1.00	35.37	O
ATOM	3522	CB	PHE	D	93	71.393	33.654	16.386	1.00	35.89	C
ATOM	3523	CG	PHE	D	93	70.464	34.732	15.889	1.00	36.43	C
ATOM	3524	CD1	PHE	D	93	69.186	34.414	15.442	1.00	36.23	C
ATOM	3525	CD2	PHE	D	93	70.831	36.074	15.950	1.00	36.97	C
ATOM	3526	CE1	PHE	D	93	68.281	35.411	15.069	1.00	36.80	C
ATOM	3527	CE2	PHE	D	93	69.936	37.079	15.579	1.00	37.17	C
ATOM	3528	CZ	PHE	D	93	68.652	36.743	15.138	1.00	37.41	C
ATOM	3529	N	PHE	D	94	71.244	30.669	17.956	1.00	33.92	N
ATOM	3530	CA	PHE	D	94	71.906	29.435	18.344	1.00	33.26	C
ATOM	3531	C	PHE	D	94	71.802	28.315	17.300	1.00	33.32	C
ATOM	3532	O	PHE	D	94	70.737	28.117	16.689	1.00	32.41	O
ATOM	3533	CB	PHE	D	94	71.279	28.933	19.649	1.00	33.05	C
ATOM	3534	CG	PHE	D	94	71.288	29.944	20.775	1.00	33.05	C
ATOM	3535	CD1	PHE	D	94	72.357	29.998	21.675	1.00	32.73	C
ATOM	3536	CD2	PHE	D	94	70.217	30.824	20.952	1.00	32.88	C
ATOM	3537	CE1	PHE	D	94	72.359	30.906	22.733	1.00	32.76	C
ATOM	3538	CE2	PHE	D	94	70.206	31.739	22.006	1.00	32.89	C
ATOM	3539	CZ	PHE	D	94	71.279	31.780	22.901	1.00	33.32	C
ATOM	3540	N	PHE	D	95	72.899	27.582	17.109	1.00	31.85	N
ATOM	3541	CA	PHE	D	95	72.899	26.457	16.179	1.00	32.60	C
ATOM	3542	C	PHE	D	95	72.089	25.339	16.844	1.00	32.30	C
ATOM	3543	O	PHE	D	95	72.397	24.938	17.968	1.00	32.05	O
ATOM	3544	CB	PHE	D	95	74.324	25.934	15.923	1.00	33.10	C
ATOM	3545	CG	PHE	D	95	75.195	26.866	15.119	1.00	32.91	C
ATOM	3546	CD1	PHE	D	95	76.261	27.535	15.721	1.00	33.04	C
ATOM	3547	CD2	PHE	D	95	74.968	27.055	13.757	1.00	32.86	C
ATOM	3548	CE1	PHE	D	95	77.097	28.381	14.971	1.00	33.29	C
ATOM	3549	CE2	PHE	D	95	75.793	27.898	12.997	1.00	33.32	C
ATOM	3550	CZ	PHE	D	95	76.859	28.561	13.607	1.00	32.86	C
ATOM	3551	N	GLU	D	96	71.048	24.854	16.172	1.00	31.87	N
ATOM	3552	CA	GLU	D	96	70.254	23.766	16.733	1.00	32.18	C
ATOM	3553	C	GLU	D	96	70.703	22.471	16.084	1.00	33.15	C
ATOM	3554	O	GLU	D	96	70.798	22.377	14.858	1.00	32.44	O
ATOM	3555	CB	GLU	D	96	68.756	23.928	16.467	1.00	31.12	C
ATOM	3556	CG	GLU	D	96	67.933	22.775	17.062	1.00	29.98	C
ATOM	3557	CD	GLU	D	96	66.498	22.755	16.562	1.00	30.66	C
ATOM	3558	OE1	GLU	D	96	66.294	22.331	15.406	1.00	30.70	O
ATOM	3559	OE2	GLU	D	96	65.584	23.166	17.316	1.00	28.95	O
ATOM	3560	N	ARG	D	97	70.958	21.470	16.915	1.00	34.24	N
ATOM	3561	CA	ARG	D	97	71.398	20.178	16.420	1.00	35.69	C

Table 3

ATOM	3562	C	ARG	D	97	70.717	19.011	17.133	1.00	34.61	C
ATOM	3563	O	ARG	D	97	70.569	19.013	18.353	1.00	33.67	O
ATOM	3564	CB	ARG	D	97	72.918	20.067	16.577	1.00	37.85	C
ATOM	3565	CG	ARG	D	97	73.515	18.742	16.123	1.00	41.19	C
ATOM	3566	CD	ARG	D	97	75.028	18.753	16.275	1.00	43.69	C
ATOM	3567	NE	ARG	D	97	75.620	17.424	16.122	1.00	45.78	N
ATOM	3568	CZ	ARG	D	97	76.905	17.149	16.339	1.00	47.38	C
ATOM	3569	NH1	ARG	D	97	77.741	18.113	16.717	1.00	47.78	N
ATOM	3570	NH2	ARG	D	97	77.357	15.908	16.191	1.00	48.28	N
ATOM	3571	N	LEU	D	98	70.281	18.035	16.350	1.00	34.95	N
ATOM	3572	CA	LEU	D	98	69.654	16.827	16.877	1.00	35.44	C
ATOM	3573	C	LEU	D	98	70.809	15.841	17.032	1.00	36.45	C
ATOM	3574	O	LEU	D	98	71.350	15.369	16.036	1.00	36.70	O
ATOM	3575	CB	LEU	D	98	68.644	16.268	15.880	1.00	34.55	C
ATOM	3576	CG	LEU	D	98	68.079	14.873	16.199	1.00	35.46	C
ATOM	3577	CD1	LEU	D	98	67.448	14.843	17.582	1.00	32.80	C
ATOM	3578	CD2	LEU	D	98	67.048	14.506	15.135	1.00	35.91	C
ATOM	3579	N	GLU	D	99	71.208	15.550	18.270	1.00	38.33	N
ATOM	3580	CA	GLU	D	99	72.325	14.628	18.518	1.00	38.88	C
ATOM	3581	C	GLU	D	99	71.920	13.181	18.270	1.00	40.14	C
ATOM	3582	O	GLU	D	99	70.729	12.846	18.213	1.00	39.39	O
ATOM	3583	CB	GLU	D	99	72.847	14.748	19.965	1.00	39.75	C
ATOM	3584	CG	GLU	D	99	73.198	16.162	20.442	1.00	41.74	C
ATOM	3585	CD	GLU	D	99	74.502	16.716	19.866	1.00	43.10	C
ATOM	3586	OE1	GLU	D	99	74.743	17.936	20.020	1.00	42.78	O
ATOM	3587	OE2	GLU	D	99	75.287	15.943	19.271	1.00	43.51	O
ATOM	3588	N	SER	D	100	72.928	12.321	18.143	1.00	40.94	N
ATOM	3589	CA	SER	D	100	72.715	10.898	17.900	1.00	40.80	C
ATOM	3590	C	SER	D	100	71.904	10.244	19.011	1.00	39.91	C
ATOM	3591	O	SER	D	100	71.263	9.208	18.803	1.00	40.88	O
ATOM	3592	CB	SER	D	100	74.071	10.190	17.741	1.00	42.60	C
ATOM	3593	OG	SER	D	100	74.947	10.490	18.817	1.00	44.54	O
ATOM	3594	N	ASN	D	101	71.932	10.845	20.195	1.00	38.36	N
ATOM	3595	CA	ASN	D	101	71.177	10.321	21.332	1.00	36.69	C
ATOM	3596	C	ASN	D	101	69.696	10.749	21.276	1.00	35.64	C
ATOM	3597	O	ASN	D	101	68.899	10.398	22.150	1.00	35.66	O
ATOM	3598	CB	ASN	D	101	71.804	10.803	22.651	1.00	38.65	C
ATOM	3599	CG	ASN	D	101	72.075	12.313	22.666	1.00	40.05	C
ATOM	3600	OD1	ASN	D	101	71.369	13.092	22.022	1.00	41.26	O
ATOM	3601	ND2	ASN	D	101	73.096	12.726	23.415	1.00	39.62	N
ATOM	3602	N	ASN	D	102	69.349	11.507	20.239	1.00	33.81	N
ATOM	3603	CA	ASN	D	102	68.002	12.019	20.009	1.00	32.56	C
ATOM	3604	C	ASN	D	102	67.522	13.171	20.899	1.00	31.26	C
ATOM	3605	O	ASN	D	102	66.317	13.381	21.053	1.00	29.28	O
ATOM	3606	CB	ASN	D	102	66.970	10.883	20.007	1.00	32.99	C
ATOM	3607	CG	ASN	D	102	66.878	10.190	18.649	1.00	35.04	C
ATOM	3608	OD1	ASN	D	102	67.072	10.824	17.608	1.00	35.88	O
ATOM	3609	ND2	ASN	D	102	66.571	8.894	18.654	1.00	35.03	N
ATOM	3610	N	TYR	D	103	68.476	13.907	21.474	1.00	29.52	N
ATOM	3611	CA	TYR	D	103	68.196	15.085	22.292	1.00	27.94	C
ATOM	3612	C	TYR	D	103	68.703	16.265	21.454	1.00	27.63	C
ATOM	3613	O	TYR	D	103	69.495	16.081	20.533	1.00	27.55	O
ATOM	3614	CB	TYR	D	103	68.960	15.030	23.615	1.00	26.70	C
ATOM	3615	CG	TYR	D	103	68.322	14.163	24.679	1.00	26.44	C
ATOM	3616	CD1	TYR	D	103	67.350	14.677	25.540	1.00	26.62	C
ATOM	3617	CD2	TYR	D	103	68.686	12.822	24.825	1.00	26.07	C
ATOM	3618	CE1	TYR	D	103	66.759	13.869	26.525	1.00	26.64	C
ATOM	3619	CE2	TYR	D	103	68.101	12.015	25.797	1.00	25.54	C
ATOM	3620	CZ	TYR	D	103	67.146	12.537	26.638	1.00	26.07	C
ATOM	3621	OH	TYR	D	103	66.562	11.727	27.578	1.00	26.51	O
ATOM	3622	N	ASN	D	104	68.248	17.472	21.757	1.00	27.05	N
ATOM	3623	CA	ASN	D	104	68.686	18.651	21.008	1.00	27.18	C
ATOM	3624	C	ASN	D	104	69.728	19.441	21.803	1.00	26.18	C
ATOM	3625	O	ASN	D	104	69.762	19.364	23.030	1.00	25.52	O
ATOM	3626	CB	ASN	D	104	67.497	19.581	20.732	1.00	28.01	C
ATOM	3627	CG	ASN	D	104	66.696	19.179	19.503	1.00	29.43	C

Table 3

ATOM	3628	OD1	ASN	D	104	66.739	18.037	19.054	1.00	29.97	O
ATOM	3629	ND2	ASN	D	104	65.949	20.129	18.962	1.00	29.97	N
ATOM	3630	N	THR	D	105	70.583	20.177	21.095	1.00	25.93	N
ATOM	3631	CA	THR	D	105	71.567	21.047	21.745	1.00	26.23	C
ATOM	3632	C	THR	D	105	71.494	22.398	21.050	1.00	26.45	C
ATOM	3633	O	THR	D	105	71.169	22.481	19.858	1.00	25.80	O
ATOM	3634	CB	THR	D	105	73.027	20.518	21.667	1.00	26.04	C
ATOM	3635	OG1	THR	D	105	73.457	20.456	20.300	1.00	26.82	O
ATOM	3636	CG2	THR	D	105	73.132	19.158	22.319	1.00	26.71	C
ATOM	3637	N	TYR	D	106	71.792	23.453	21.804	1.00	27.12	N
ATOM	3638	CA	TYR	D	106	71.751	24.815	21.291	1.00	27.86	C
ATOM	3639	C	TYR	D	106	73.087	25.500	21.565	1.00	29.60	C
ATOM	3640	O	TYR	D	106	73.414	25.799	22.714	1.00	29.29	O
ATOM	3641	CB	TYR	D	106	70.590	25.551	21.966	1.00	26.16	C
ATOM	3642	CG	TYR	D	106	69.281	24.950	21.546	1.00	25.64	C
ATOM	3643	CD1	TYR	D	106	68.707	25.285	20.316	1.00	24.14	C
ATOM	3644	CD2	TYR	D	106	68.671	23.958	22.314	1.00	23.58	C
ATOM	3645	CE1	TYR	D	106	67.567	24.636	19.856	1.00	25.46	C
ATOM	3646	CE2	TYR	D	106	67.533	23.301	21.861	1.00	25.15	C
ATOM	3647	CZ	TYR	D	106	66.988	23.643	20.631	1.00	24.17	C
ATOM	3648	OH	TYR	D	106	65.902	22.965	20.148	1.00	24.91	O
ATOM	3649	N	ARG	D	107	73.845	25.732	20.494	1.00	31.16	N
ATOM	3650	CA	ARG	D	107	75.174	26.336	20.574	1.00	32.67	C
ATOM	3651	C	ARG	D	107	75.199	27.760	20.030	1.00	33.24	C
ATOM	3652	O	ARG	D	107	74.730	28.020	18.924	1.00	33.30	O
ATOM	3653	CB	ARG	D	107	76.158	25.463	19.798	1.00	32.67	C
ATOM	3654	CG	ARG	D	107	77.603	25.889	19.865	1.00	32.58	C
ATOM	3655	CD	ARG	D	107	78.476	24.804	19.241	1.00	31.51	C
ATOM	3656	NE	ARG	D	107	78.094	24.520	17.862	1.00	29.79	N
ATOM	3657	CZ	ARG	D	107	78.500	25.227	16.814	1.00	31.11	C
ATOM	3658	NH1	ARG	D	107	79.311	26.267	16.989	1.00	31.22	N
ATOM	3659	NH2	ARG	D	107	78.104	24.899	15.589	1.00	29.39	N
ATOM	3660	N	SER	D	108	75.752	28.676	20.822	1.00	34.39	N
ATOM	3661	CA	SER	D	108	75.843	30.091	20.456	1.00	35.36	C
ATOM	3662	C	SER	D	108	76.526	30.316	19.108	1.00	36.03	C
ATOM	3663	O	SER	D	108	77.611	29.789	18.861	1.00	36.15	O
ATOM	3664	CB	SER	D	108	76.600	30.858	21.551	1.00	35.17	C
ATOM	3665	OG	SER	D	108	76.895	32.186	21.163	1.00	33.39	O
ATOM	3666	N	ARG	D	109	75.889	31.092	18.233	1.00	36.63	N
ATOM	3667	CA	ARG	D	109	76.480	31.373	16.930	1.00	38.27	C
ATOM	3668	C	ARG	D	109	77.601	32.401	17.088	1.00	39.85	C
ATOM	3669	O	ARG	D	109	78.510	32.460	16.264	1.00	40.21	O
ATOM	3670	CB	ARG	D	109	75.426	31.906	15.946	1.00	37.43	C
ATOM	3671	CG	ARG	D	109	75.960	32.088	14.509	1.00	36.51	C
ATOM	3672	CD	ARG	D	109	74.879	32.531	13.518	1.00	35.80	C
ATOM	3673	NE	ARG	D	109	74.373	33.875	13.799	1.00	36.06	N
ATOM	3674	CZ	ARG	D	109	73.471	34.516	13.055	1.00	35.79	C
ATOM	3675	NH1	ARG	D	109	72.962	33.941	11.977	1.00	35.72	N
ATOM	3676	NH2	ARG	D	109	73.076	35.740	13.385	1.00	34.84	N
ATOM	3677	N	LYS	D	110	77.535	33.202	18.153	1.00	41.38	N
ATOM	3678	CA	LYS	D	110	78.548	34.224	18.409	1.00	42.34	C
ATOM	3679	C	LYS	D	110	79.756	33.629	19.142	1.00	42.60	C
ATOM	3680	O	LYS	D	110	80.887	33.701	18.654	1.00	42.50	O
ATOM	3681	CB	LYS	D	110	77.950	35.372	19.228	1.00	43.39	C
ATOM	3682	CG	LYS	D	110	78.764	36.671	19.157	1.00	45.14	C
ATOM	3683	CD	LYS	D	110	78.184	37.733	20.089	1.00	46.94	C
ATOM	3684	CE	LYS	D	110	78.868	39.075	19.907	1.00	46.68	C
ATOM	3685	NZ	LYS	D	110	78.587	39.607	18.551	1.00	48.63	N
ATOM	3686	N	TYR	D	111	79.505	33.048	20.313	1.00	42.45	N
ATOM	3687	CA	TYR	D	111	80.536	32.405	21.121	1.00	42.43	C
ATOM	3688	C	TYR	D	111	80.366	30.917	20.802	1.00	41.95	C
ATOM	3689	O	TYR	D	111	79.767	30.157	21.567	1.00	41.52	O
ATOM	3690	CB	TYR	D	111	80.276	32.716	22.604	1.00	42.93	C
ATOM	3691	CG	TYR	D	111	80.008	34.192	22.835	1.00	44.45	C
ATOM	3692	CD1	TYR	D	111	81.028	35.142	22.685	1.00	44.58	C
ATOM	3693	CD2	TYR	D	111	78.716	34.656	23.100	1.00	44.75	C

Table 3

ATOM	3694	CE1	TYR	D	111	80.763	36.515	22.779	1.00	44.52	C
ATOM	3695	CE2	TYR	D	111	78.439	36.035	23.198	1.00	44.98	C
ATOM	3696	CZ	TYR	D	111	79.468	36.958	23.031	1.00	44.96	C
ATOM	3697	OH	TYR	D	111	79.198	38.313	23.072	1.00	43.46	O
ATOM	3698	N	THR	D	112	80.900	30.530	19.647	1.00	41.87	N
ATOM	3699	CA	THR	D	112	80.780	29.176	19.106	1.00	42.40	C
ATOM	3700	C	THR	D	112	81.192	27.950	19.913	1.00	42.28	C
ATOM	3701	O	THR	D	112	81.138	26.839	19.395	1.00	42.54	O
ATOM	3702	CB	THR	D	112	81.475	29.082	17.731	1.00	42.16	C
ATOM	3703	OG1	THR	D	112	82.874	29.351	17.884	1.00	41.13	O
ATOM	3704	CG2	THR	D	112	80.859	30.088	16.748	1.00	41.44	C
ATOM	3705	N	SER	D	113	81.587	28.118	21.168	1.00	42.10	N
ATOM	3706	CA	SER	D	113	81.975	26.954	21.955	1.00	42.41	C
ATOM	3707	C	SER	D	113	81.080	26.724	23.163	1.00	41.80	C
ATOM	3708	O	SER	D	113	81.165	25.685	23.822	1.00	41.36	O
ATOM	3709	CB	SER	D	113	83.435	27.081	22.409	1.00	42.58	C
ATOM	3710	OG	SER	D	113	84.313	26.966	21.300	1.00	42.66	O
ATOM	3711	N	TRP	D	114	80.213	27.686	23.445	1.00	41.58	N
ATOM	3712	CA	TRP	D	114	79.332	27.576	24.599	1.00	41.47	C
ATOM	3713	C	TRP	D	114	77.904	27.130	24.259	1.00	39.93	C
ATOM	3714	O	TRP	D	114	77.361	27.475	23.206	1.00	39.72	O
ATOM	3715	CB	TRP	D	114	79.332	28.910	25.356	1.00	43.57	C
ATOM	3716	CG	TRP	D	114	80.737	29.376	25.716	1.00	46.05	C
ATOM	3717	CD1	TRP	D	114	81.863	28.593	25.827	1.00	46.16	C
ATOM	3718	CD2	TRP	D	114	81.150	30.713	26.040	1.00	46.32	C
ATOM	3719	NE1	TRP	D	114	82.943	29.363	26.198	1.00	46.71	N
ATOM	3720	CE2	TRP	D	114	82.536	30.665	26.336	1.00	47.01	C
ATOM	3721	CE3	TRP	D	114	80.486	31.947	26.110	1.00	47.32	C
ATOM	3722	CZ2	TRP	D	114	83.265	31.805	26.699	1.00	47.13	C
ATOM	3723	CZ3	TRP	D	114	81.216	33.085	26.469	1.00	47.34	C
ATOM	3724	CH2	TRP	D	114	82.589	33.002	26.759	1.00	47.61	C
ATOM	3725	N	TYR	D	115	77.314	26.356	25.168	1.00	38.33	N
ATOM	3726	CA	TYR	D	115	75.960	25.828	25.006	1.00	36.97	C
ATOM	3727	C	TYR	D	115	74.963	26.369	26.025	1.00	36.33	C
ATOM	3728	O	TYR	D	115	75.331	26.736	27.138	1.00	35.87	O
ATOM	3729	CB	TYR	D	115	75.942	24.304	25.164	1.00	36.22	C
ATOM	3730	CG	TYR	D	115	76.677	23.519	24.111	1.00	36.66	C
ATOM	3731	CD1	TYR	D	115	78.025	23.190	24.268	1.00	36.79	C
ATOM	3732	CD2	TYR	D	115	76.019	23.076	22.965	1.00	36.10	C
ATOM	3733	CE1	TYR	D	115	78.701	22.430	23.303	1.00	36.07	C
ATOM	3734	CE2	TYR	D	115	76.683	22.319	21.998	1.00	36.64	C
ATOM	3735	CZ	TYR	D	115	78.024	22.001	22.174	1.00	36.29	C
ATOM	3736	OH	TYR	D	115	78.680	21.264	21.215	1.00	37.12	O
ATOM	3737	N	VAL	D	116	73.695	26.407	25.635	1.00	35.23	N
ATOM	3738	CA	VAL	D	116	72.642	26.819	26.551	1.00	34.37	C
ATOM	3739	C	VAL	D	116	72.531	25.584	27.446	1.00	34.42	C
ATOM	3740	O	VAL	D	116	72.486	24.459	26.952	1.00	34.27	O
ATOM	3741	CB	VAL	D	116	71.323	27.074	25.793	1.00	34.00	C
ATOM	3742	CG1	VAL	D	116	70.193	27.308	26.770	1.00	33.39	C
ATOM	3743	CG2	VAL	D	116	71.488	28.278	24.859	1.00	32.59	C
ATOM	3744	N	ALA	D	117	72.516	25.782	28.758	1.00	34.87	N
ATOM	3745	CA	ALA	D	117	72.467	24.649	29.670	1.00	35.64	C
ATOM	3746	C	ALA	D	117	71.928	25.005	31.042	1.00	36.78	C
ATOM	3747	O	ALA	D	117	71.969	26.163	31.464	1.00	37.35	O
ATOM	3748	CB	ALA	D	117	73.860	24.049	29.816	1.00	34.13	C
ATOM	3749	N	LEU	D	118	71.436	23.989	31.741	1.00	37.10	N
ATOM	3750	CA	LEU	D	118	70.900	24.169	33.077	1.00	38.06	C
ATOM	3751	C	LEU	D	118	71.645	23.263	34.048	1.00	38.81	C
ATOM	3752	O	LEU	D	118	72.098	22.184	33.670	1.00	39.30	O
ATOM	3753	CB	LEU	D	118	69.407	23.837	33.094	1.00	37.70	C
ATOM	3754	CG	LEU	D	118	68.470	24.742	32.287	1.00	37.45	C
ATOM	3755	CD1	LEU	D	118	67.059	24.204	32.409	1.00	37.34	C
ATOM	3756	CD2	LEU	D	118	68.536	26.189	32.801	1.00	37.18	C
ATOM	3757	N	LYS	D	119	71.773	23.709	35.294	1.00	40.12	N
ATOM	3758	CA	LYS	D	119	72.457	22.938	36.332	1.00	41.45	C
ATOM	3759	C	LYS	D	119	71.459	22.071	37.089	1.00	41.83	C

Table 3

ATOM	3760	O	LYS	D	119	70.251	22.332	37.059	1.00	41.78	O
ATOM	3761	CB	LYS	D	119	73.172	23.882	37.311	1.00	41.32	C
ATOM	3762	N	ARG	D	120	71.967	21.044	37.767	1.00	41.92	N
ATOM	3763	CA	ARG	D	120	71.121	20.127	38.531	1.00	42.76	C
ATOM	3764	C	ARG	D	120	70.283	20.873	39.562	1.00	43.01	C
ATOM	3765	O	ARG	D	120	69.272	20.367	40.036	1.00	42.82	O
ATOM	3766	CB	ARG	D	120	71.977	19.066	39.232	1.00	41.45	C
ATOM	3767	N	THR	D	121	70.705	22.087	39.896	1.00	44.40	N
ATOM	3768	CA	THR	D	121	70.002	22.902	40.878	1.00	45.13	C
ATOM	3769	C	THR	D	121	68.783	23.614	40.294	1.00	45.85	C
ATOM	3770	O	THR	D	121	67.838	23.928	41.015	1.00	46.11	O
ATOM	3771	CB	THR	D	121	70.938	23.968	41.492	1.00	45.88	C
ATOM	3772	OG1	THR	D	121	71.355	24.884	40.474	1.00	46.18	O
ATOM	3773	CG2	THR	D	121	72.170	23.311	42.107	1.00	45.54	C
ATOM	3774	N	GLY	D	122	68.795	23.861	38.990	1.00	46.02	N
ATOM	3775	CA	GLY	D	122	67.676	24.550	38.380	1.00	46.48	C
ATOM	3776	C	GLY	D	122	68.100	25.922	37.901	1.00	47.04	C
ATOM	3777	O	GLY	D	122	67.324	26.662	37.291	1.00	47.14	O
ATOM	3778	N	GLN	D	123	69.348	26.269	38.191	1.00	47.07	N
ATOM	3779	CA	GLN	D	123	69.901	27.544	37.766	1.00	47.46	C
ATOM	3780	C	GLN	D	123	70.659	27.275	36.471	1.00	47.19	C
ATOM	3781	O	GLN	D	123	71.162	26.169	36.261	1.00	46.75	O
ATOM	3782	CB	GLN	D	123	70.844	28.091	38.841	1.00	48.11	C
ATOM	3783	CG	GLN	D	123	70.171	28.283	40.208	1.00	50.27	C
ATOM	3784	CD	GLN	D	123	68.986	29.255	40.164	1.00	51.25	C
ATOM	3785	OE1	GLN	D	123	69.148	30.434	39.844	1.00	52.08	O
ATOM	3786	NE2	GLN	D	123	67.792	28.758	40.488	1.00	52.19	N
ATOM	3787	N	TYR	D	124	70.728	28.266	35.589	1.00	46.86	N
ATOM	3788	CA	TYR	D	124	71.437	28.057	34.334	1.00	46.79	C
ATOM	3789	C	TYR	D	124	72.906	27.787	34.621	1.00	46.37	C
ATOM	3790	O	TYR	D	124	73.376	28.001	35.732	1.00	45.85	O
ATOM	3791	CB	TYR	D	124	71.280	29.267	33.392	1.00	46.13	C
ATOM	3792	CG	TYR	D	124	71.982	30.538	33.819	1.00	46.17	C
ATOM	3793	CD1	TYR	D	124	73.378	30.606	33.889	1.00	46.43	C
ATOM	3794	CD2	TYR	D	124	71.255	31.679	34.141	1.00	46.18	C
ATOM	3795	CE1	TYR	D	124	74.027	31.773	34.271	1.00	45.82	C
ATOM	3796	CE2	TYR	D	124	71.895	32.855	34.525	1.00	46.61	C
ATOM	3797	CZ	TYR	D	124	73.281	32.893	34.588	1.00	46.75	C
ATOM	3798	OH	TYR	D	124	73.916	34.050	34.968	1.00	46.83	O
ATOM	3799	N	LYS	D	125	73.623	27.309	33.614	1.00	46.56	N
ATOM	3800	CA	LYS	D	125	75.037	27.012	33.753	1.00	46.99	C
ATOM	3801	C	LYS	D	125	75.827	27.925	32.810	1.00	48.06	C
ATOM	3802	O	LYS	D	125	75.468	28.063	31.639	1.00	47.64	O
ATOM	3803	CB	LYS	D	125	75.286	25.536	33.412	1.00	46.02	C
ATOM	3804	CG	LYS	D	125	76.737	25.092	33.511	1.00	44.48	C
ATOM	3805	CD	LYS	D	125	76.882	23.588	33.317	1.00	43.98	C
ATOM	3806	CE	LYS	D	125	78.340	23.164	33.502	1.00	44.57	C
ATOM	3807	NZ	LYS	D	125	78.571	21.693	33.380	1.00	44.60	N
ATOM	3808	N	LEU	D	126	76.885	28.557	33.326	1.00	49.01	N
ATOM	3809	CA	LEU	D	126	77.709	29.456	32.515	1.00	49.83	C
ATOM	3810	C	LEU	D	126	78.138	28.779	31.227	1.00	50.46	C
ATOM	3811	O	LEU	D	126	78.679	27.671	31.249	1.00	50.50	O
ATOM	3812	CB	LEU	D	126	78.961	29.896	33.275	1.00	50.45	C
ATOM	3813	CG	LEU	D	126	78.867	31.113	34.195	1.00	50.81	C
ATOM	3814	CD1	LEU	D	126	80.256	31.435	34.713	1.00	51.18	C
ATOM	3815	CD2	LEU	D	126	78.300	32.310	33.440	1.00	51.05	C
ATOM	3816	N	GLY	D	127	77.902	29.451	30.107	1.00	50.73	N
ATOM	3817	CA	GLY	D	127	78.273	28.887	28.825	1.00	51.40	C
ATOM	3818	C	GLY	D	127	79.724	28.447	28.784	1.00	51.76	C
ATOM	3819	O	GLY	D	127	80.065	27.458	28.135	1.00	51.74	O
ATOM	3820	N	SER	D	128	80.581	29.181	29.485	1.00	52.20	N
ATOM	3821	CA	SER	D	128	82.009	28.877	29.517	1.00	52.38	C
ATOM	3822	C	SER	D	128	82.332	27.552	30.204	1.00	52.36	C
ATOM	3823	O	SER	D	128	83.422	27.010	30.032	1.00	52.38	O
ATOM	3824	CB	SER	D	128	82.766	30.015	30.210	1.00	51.84	C
ATOM	3825	OG	SER	D	128	82.245	30.256	31.508	1.00	52.17	O

Table 3

ATOM	3826	N	LYS	D	129	81.385	27.032	30.978	1.00	52.20	N
ATOM	3827	CA	LYS	D	129	81.603	25.778	31.679	1.00	51.76	C
ATOM	3828	C	LYS	D	129	80.881	24.603	31.022	1.00	51.64	C
ATOM	3829	O	LYS	D	129	80.761	23.531	31.626	1.00	51.64	O
ATOM	3830	CB	LYS	D	129	81.163	25.914	33.141	1.00	51.90	C
ATOM	3831	N	THR	D	130	80.414	24.795	29.788	1.00	50.58	N
ATOM	3832	CA	THR	D	130	79.702	23.732	29.073	1.00	49.71	C
ATOM	3833	C	THR	D	130	80.607	22.981	28.093	1.00	49.74	C
ATOM	3834	O	THR	D	130	81.644	23.495	27.668	1.00	49.14	O
ATOM	3835	CB	THR	D	130	78.464	24.285	28.296	1.00	48.64	C
ATOM	3836	OG1	THR	D	130	78.893	25.121	27.217	1.00	47.18	O
ATOM	3837	CG2	THR	D	130	77.579	25.098	29.223	1.00	47.63	C
ATOM	3838	N	GLY	D	131	80.197	21.763	27.748	1.00	49.99	N
ATOM	3839	CA	GLY	D	131	80.957	20.932	26.831	1.00	50.29	C
ATOM	3840	C	GLY	D	131	80.034	19.973	26.106	1.00	50.69	C
ATOM	3841	O	GLY	D	131	78.958	19.665	26.611	1.00	50.84	O
ATOM	3842	N	PRO	D	132	80.436	19.460	24.932	1.00	50.75	N
ATOM	3843	CA	PRO	D	132	79.650	18.532	24.114	1.00	50.96	C
ATOM	3844	C	PRO	D	132	79.156	17.236	24.755	1.00	50.84	C
ATOM	3845	O	PRO	D	132	78.126	16.697	24.342	1.00	51.32	O
ATOM	3846	CB	PRO	D	132	80.564	18.266	22.922	1.00	50.45	C
ATOM	3847	CG	PRO	D	132	81.915	18.352	23.534	1.00	51.47	C
ATOM	3848	CD	PRO	D	132	81.794	19.599	24.383	1.00	50.85	C
ATOM	3849	N	GLY	D	133	79.866	16.729	25.755	1.00	50.62	N
ATOM	3850	CA	GLY	D	133	79.423	15.487	26.368	1.00	50.28	C
ATOM	3851	C	GLY	D	133	78.620	15.632	27.653	1.00	49.91	C
ATOM	3852	O	GLY	D	133	78.214	14.631	28.251	1.00	50.17	O
ATOM	3853	N	GLN	D	134	78.365	16.868	28.072	1.00	48.40	N
ATOM	3854	CA	GLN	D	134	77.634	17.100	29.317	1.00	46.81	C
ATOM	3855	C	GLN	D	134	76.134	16.832	29.238	1.00	45.15	C
ATOM	3856	O	GLN	D	134	75.516	16.930	28.177	1.00	46.04	O
ATOM	3857	CB	GLN	D	134	77.873	18.531	29.811	1.00	46.96	C
ATOM	3858	CG	GLN	D	134	79.338	18.926	29.846	1.00	47.70	C
ATOM	3859	CD	GLN	D	134	79.558	20.326	30.386	1.00	47.89	C
ATOM	3860	OE1	GLN	D	134	78.691	21.188	30.283	1.00	47.89	O
ATOM	3861	NE2	GLN	D	134	80.735	20.562	30.948	1.00	48.55	N
ATOM	3862	N	LYS	D	135	75.561	16.497	30.386	1.00	42.43	N
ATOM	3863	CA	LYS	D	135	74.137	16.218	30.512	1.00	40.19	C
ATOM	3864	C	LYS	D	135	73.340	17.526	30.594	1.00	38.53	C
ATOM	3865	O	LYS	D	135	72.152	17.557	30.285	1.00	37.67	O
ATOM	3866	CB	LYS	D	135	73.897	15.394	31.777	1.00	40.03	C
ATOM	3867	CG	LYS	D	135	72.472	14.945	32.004	1.00	41.05	C
ATOM	3868	CD	LYS	D	135	72.397	14.061	33.240	1.00	42.04	C
ATOM	3869	CE	LYS	D	135	71.022	13.439	33.391	1.00	44.23	C
ATOM	3870	NZ	LYS	D	135	70.910	12.597	34.613	1.00	44.81	N
ATOM	3871	N	ALA	D	136	74.015	18.599	30.999	1.00	36.85	N
ATOM	3872	CA	ALA	D	136	73.396	19.914	31.159	1.00	35.15	C
ATOM	3873	C	ALA	D	136	72.975	20.606	29.865	1.00	34.16	C
ATOM	3874	O	ALA	D	136	72.150	21.519	29.895	1.00	34.00	O
ATOM	3875	CB	ALA	D	136	74.333	20.825	31.935	1.00	35.72	C
ATOM	3876	N	ILE	D	137	73.531	20.180	28.733	1.00	32.28	N
ATOM	3877	CA	ILE	D	137	73.203	20.799	27.448	1.00	31.23	C
ATOM	3878	C	ILE	D	137	72.155	20.046	26.610	1.00	29.99	C
ATOM	3879	O	ILE	D	137	71.809	20.487	25.512	1.00	28.99	O
ATOM	3880	CB	ILE	D	137	74.457	20.948	26.562	1.00	31.38	C
ATOM	3881	CG1	ILE	D	137	74.947	19.568	26.118	1.00	31.67	C
ATOM	3882	CG2	ILE	D	137	75.565	21.644	27.333	1.00	31.93	C
ATOM	3883	CD1	ILE	D	137	75.937	19.625	24.952	1.00	31.85	C
ATOM	3884	N	LEU	D	138	71.654	18.925	27.126	1.00	28.53	N
ATOM	3885	CA	LEU	D	138	70.688	18.110	26.390	1.00	28.11	C
ATOM	3886	C	LEU	D	138	69.227	18.469	26.674	1.00	27.53	C
ATOM	3887	O	LEU	D	138	68.759	18.376	27.804	1.00	26.19	O
ATOM	3888	CB	LEU	D	138	70.953	16.626	26.681	1.00	27.39	C
ATOM	3889	CG	LEU	D	138	72.392	16.167	26.347	1.00	27.32	C
ATOM	3890	CD1	LEU	D	138	72.682	14.832	27.011	1.00	26.61	C
ATOM	3891	CD2	LEU	D	138	72.600	16.079	24.829	1.00	25.73	C

Table 3

ATOM	3892	N	PHE	D	139	68.521	18.878	25.622	1.00	27.78	N
ATOM	3893	CA	PHE	D	139	67.125	19.281	25.725	1.00	27.77	C
ATOM	3894	C	PHE	D	139	66.203	18.467	24.832	1.00	28.45	C
ATOM	3895	O	PHE	D	139	66.593	18.021	23.752	1.00	27.88	O
ATOM	3896	CB	PHE	D	139	66.977	20.753	25.336	1.00	27.55	C
ATOM	3897	CG	PHE	D	139	67.586	21.709	26.317	1.00	28.64	C
ATOM	3898	CD1	PHE	D	139	68.936	22.036	26.249	1.00	28.56	C
ATOM	3899	CD2	PHE	D	139	66.808	22.275	27.324	1.00	28.87	C
ATOM	3900	CE1	PHE	D	139	69.504	22.913	27.173	1.00	30.32	C
ATOM	3901	CE2	PHE	D	139	67.365	23.152	28.255	1.00	29.77	C
ATOM	3902	CZ	PHE	D	139	68.719	23.472	28.179	1.00	29.35	C
ATOM	3903	N	LEU	D	140	64.960	18.314	25.271	1.00	28.29	N
ATOM	3904	CA	LEU	D	140	63.966	17.586	24.501	1.00	28.59	C
ATOM	3905	C	LEU	D	140	62.785	18.526	24.250	1.00	29.50	C
ATOM	3906	O	LEU	D	140	62.099	18.943	25.187	1.00	29.38	O
ATOM	3907	CB	LEU	D	140	63.496	16.359	25.281	1.00	29.24	C
ATOM	3908	CG	LEU	D	140	62.673	15.280	24.567	1.00	31.29	C
ATOM	3909	CD1	LEU	D	140	63.522	14.623	23.477	1.00	31.65	C
ATOM	3910	CD2	LEU	D	140	62.212	14.221	25.592	1.00	30.86	C
ATOM	3911	N	PRO	D	141	62.548	18.903	22.985	1.00	30.09	N
ATOM	3912	CA	PRO	D	141	61.418	19.795	22.727	1.00	31.12	C
ATOM	3913	C	PRO	D	141	60.091	19.067	22.980	1.00	32.93	C
ATOM	3914	O	PRO	D	141	59.897	17.931	22.533	1.00	32.97	O
ATOM	3915	CB	PRO	D	141	61.607	20.184	21.260	1.00	30.79	C
ATOM	3916	CG	PRO	D	141	62.294	18.994	20.689	1.00	32.15	C
ATOM	3917	CD	PRO	D	141	63.310	18.658	21.747	1.00	29.91	C
ATOM	3918	N	MET	D	142	59.194	19.718	23.716	1.00	33.86	N
ATOM	3919	CA	MET	D	142	57.892	19.132	24.030	1.00	35.77	C
ATOM	3920	C	MET	D	142	56.747	20.096	23.728	1.00	36.97	C
ATOM	3921	O	MET	D	142	56.921	21.317	23.711	1.00	36.81	O
ATOM	3922	CB	MET	D	142	57.820	18.728	25.511	1.00	35.48	C
ATOM	3923	CG	MET	D	142	58.802	17.641	25.919	1.00	35.60	C
ATOM	3924	SD	MET	D	142	58.757	17.282	27.684	1.00	36.85	S
ATOM	3925	CE	MET	D	142	57.505	15.979	27.723	1.00	35.78	C
ATOM	3926	N	SER	D	143	55.572	19.529	23.499	1.00	38.75	N
ATOM	3927	CA	SER	D	143	54.375	20.304	23.202	1.00	40.93	C
ATOM	3928	C	SER	D	143	54.012	21.269	24.320	1.00	41.71	C
ATOM	3929	O	SER	D	143	54.180	20.966	25.502	1.00	40.96	O
ATOM	3930	CB	SER	D	143	53.194	19.362	22.976	1.00	41.49	C
ATOM	3931	OG	SER	D	143	51.973	20.068	23.054	1.00	43.53	O
ATOM	3932	N	ALA	D	144	53.508	22.435	23.939	1.00	43.61	N
ATOM	3933	CA	ALA	D	144	53.092	23.430	24.915	1.00	46.08	C
ATOM	3934	C	ALA	D	144	51.644	23.151	25.325	1.00	47.46	C
ATOM	3935	O	ALA	D	144	50.915	24.060	25.720	1.00	48.06	O
ATOM	3936	CB	ALA	D	144	53.210	24.815	24.319	1.00	46.29	C
ATOM	3937	N	LYS	D	145	51.239	21.885	25.223	1.00	48.83	N
ATOM	3938	CA	LYS	D	145	49.887	21.465	25.587	1.00	50.09	C
ATOM	3939	C	LYS	D	145	48.841	22.277	24.834	1.00	50.66	C
ATOM	3940	O	LYS	D	145	48.764	22.067	23.603	1.00	51.83	O
ATOM	3941	CB	LYS	D	145	49.679	21.615	27.099	1.00	49.26	C
TER	3942		LYS	D	145						
ATOM	3943	N	ASN	E	150	63.387	18.498	-44.664	1.00	47.77	N
ATOM	3944	CA	ASN	E	150	63.113	19.128	-43.338	1.00	46.93	C
ATOM	3945	C	ASN	E	150	62.016	18.447	-42.513	1.00	46.19	C
ATOM	3946	O	ASN	E	150	62.081	18.424	-41.284	1.00	46.58	O
ATOM	3947	CB	ASN	E	150	62.737	20.595	-43.521	1.00	46.99	C
ATOM	3948	N	LYS	E	151	61.010	17.896	-43.184	1.00	45.03	N
ATOM	3949	CA	LYS	E	151	59.899	17.209	-42.519	1.00	43.69	C
ATOM	3950	C	LYS	E	151	60.297	15.780	-42.130	1.00	43.11	C
ATOM	3951	O	LYS	E	151	60.737	14.997	-42.972	1.00	42.16	O
ATOM	3952	CB	LYS	E	151	58.666	17.186	-43.434	1.00	42.74	C
ATOM	3953	N	ARG	E	152	60.135	15.427	-40.856	1.00	42.03	N
ATOM	3954	CA	ARG	E	152	60.542	14.090	-40.419	1.00	40.41	C
ATOM	3955	C	ARG	E	152	59.854	13.582	-39.156	1.00	39.14	C
ATOM	3956	O	ARG	E	152	59.402	14.355	-38.305	1.00	38.94	O
ATOM	3957	CB	ARG	E	152	62.056	14.073	-40.194	1.00	40.84	C

Table 3

ATOM	3958	CG	ARG	E	152	62.522	15.098	-39.163	1.00	41.74	C
ATOM	3959	CD	ARG	E	152	64.039	15.142	-39.044	1.00	41.72	C
ATOM	3960	NE	ARG	E	152	64.597	13.867	-38.601	1.00	41.23	N
ATOM	3961	CZ	ARG	E	152	65.873	13.691	-38.262	1.00	41.68	C
ATOM	3962	NH1	ARG	E	152	66.722	14.706	-38.319	1.00	41.31	N
ATOM	3963	NH2	ARG	E	152	66.304	12.507	-37.851	1.00	41.80	N
ATOM	3964	N	ALA	E	153	59.790	12.262	-39.050	1.00	37.40	N
ATOM	3965	CA	ALA	E	153	59.188	11.604	-37.908	1.00	35.59	C
ATOM	3966	C	ALA	E	153	59.976	11.931	-36.633	1.00	34.63	C
ATOM	3967	O	ALA	E	153	61.091	12.444	-36.683	1.00	34.27	O
ATOM	3968	CB	ALA	E	153	59.153	10.086	-38.147	1.00	35.29	C
ATOM	3969	N	PRO	E	154	59.396	11.629	-35.467	1.00	33.84	N
ATOM	3970	CA	PRO	E	154	60.045	11.892	-34.183	1.00	33.06	C
ATOM	3971	C	PRO	E	154	61.294	11.046	-33.977	1.00	33.19	C
ATOM	3972	O	PRO	E	154	61.378	9.921	-34.475	1.00	32.44	O
ATOM	3973	CB	PRO	E	154	58.954	11.553	-33.185	1.00	33.37	C
ATOM	3974	CG	PRO	E	154	58.220	10.453	-33.883	1.00	33.19	C
ATOM	3975	CD	PRO	E	154	58.098	10.962	-35.274	1.00	32.82	C
ATOM	3976	N	TYR	E	155	62.260	11.596	-33.247	1.00	33.51	N
ATOM	3977	CA	TYR	E	155	63.498	10.894	-32.958	1.00	34.94	C
ATOM	3978	C	TYR	E	155	64.120	11.421	-31.662	1.00	34.71	C
ATOM	3979	O	TYR	E	155	63.963	12.592	-31.327	1.00	34.98	O
ATOM	3980	CB	TYR	E	155	64.481	11.049	-34.127	1.00	36.16	C
ATOM	3981	CG	TYR	E	155	64.952	12.469	-34.361	1.00	37.74	C
ATOM	3982	CD1	TYR	E	155	64.101	13.430	-34.914	1.00	38.83	C
ATOM	3983	CD2	TYR	E	155	66.246	12.854	-34.017	1.00	38.46	C
ATOM	3984	CE1	TYR	E	155	64.532	14.740	-35.117	1.00	39.50	C
ATOM	3985	CE2	TYR	E	155	66.685	14.156	-34.212	1.00	39.37	C
ATOM	3986	CZ	TYR	E	155	65.826	15.093	-34.762	1.00	39.92	C
ATOM	3987	OH	TYR	E	155	66.273	16.380	-34.954	1.00	41.10	O
ATOM	3988	N	TRP	E	156	64.812	10.548	-30.935	1.00	34.75	N
ATOM	3989	CA	TRP	E	156	65.469	10.923	-29.681	1.00	36.24	C
ATOM	3990	C	TRP	E	156	66.687	11.801	-29.972	1.00	37.97	C
ATOM	3991	O	TRP	E	156	67.530	11.419	-30.777	1.00	38.67	O
ATOM	3992	CB	TRP	E	156	65.934	9.663	-28.944	1.00	33.60	C
ATOM	3993	CG	TRP	E	156	64.863	8.670	-28.702	1.00	31.13	C
ATOM	3994	CD1	TRP	E	156	64.932	7.336	-28.928	1.00	29.72	C
ATOM	3995	CD2	TRP	E	156	63.554	8.925	-28.168	1.00	30.40	C
ATOM	3996	NE1	TRP	E	156	63.755	6.732	-28.572	1.00	29.08	N
ATOM	3997	CE2	TRP	E	156	62.888	7.682	-28.103	1.00	30.19	C
ATOM	3998	CE3	TRP	E	156	62.881	10.082	-27.737	1.00	29.65	C
ATOM	3999	CZ2	TRP	E	156	61.575	7.554	-27.625	1.00	29.52	C
ATOM	4000	CZ3	TRP	E	156	61.574	9.962	-27.261	1.00	29.43	C
ATOM	4001	CH2	TRP	E	156	60.935	8.703	-27.209	1.00	29.93	C
ATOM	4002	N	THR	E	157	66.782	12.957	-29.314	1.00	40.28	N
ATOM	4003	CA	THR	E	157	67.902	13.875	-29.521	1.00	42.16	C
ATOM	4004	C	THR	E	157	69.039	13.675	-28.533	1.00	43.32	C
ATOM	4005	O	THR	E	157	70.058	14.349	-28.620	1.00	44.81	O
ATOM	4006	CB	THR	E	157	67.461	15.348	-29.435	1.00	42.71	C
ATOM	4007	OG1	THR	E	157	66.867	15.605	-28.154	1.00	43.09	O
ATOM	4008	CG2	THR	E	157	66.473	15.672	-30.544	1.00	43.30	C
ATOM	4009	N	ASN	E	158	68.872	12.757	-27.590	1.00	44.89	N
ATOM	4010	CA	ASN	E	158	69.924	12.487	-26.612	1.00	46.03	C
ATOM	4011	C	ASN	E	158	69.718	11.148	-25.926	1.00	45.86	C
ATOM	4012	O	ASN	E	158	69.194	11.090	-24.817	1.00	45.97	O
ATOM	4013	CB	ASN	E	158	69.979	13.589	-25.551	1.00	47.13	C
ATOM	4014	CG	ASN	E	158	71.164	13.429	-24.610	1.00	48.57	C
ATOM	4015	OD1	ASN	E	158	71.263	12.448	-23.865	1.00	48.99	O
ATOM	4016	ND2	ASN	E	158	72.074	14.394	-24.644	1.00	48.78	N
ATOM	4017	N	THR	E	159	70.146	10.075	-26.586	1.00	45.97	N
ATOM	4018	CA	THR	E	159	69.996	8.730	-26.040	1.00	46.61	C
ATOM	4019	C	THR	E	159	70.850	8.478	-24.806	1.00	47.15	C
ATOM	4020	O	THR	E	159	70.583	7.542	-24.051	1.00	47.10	O
ATOM	4021	CB	THR	E	159	70.339	7.634	-27.087	1.00	47.22	C
ATOM	4022	OG1	THR	E	159	71.646	7.868	-27.626	1.00	48.06	O
ATOM	4023	CG2	THR	E	159	69.318	7.629	-28.221	1.00	47.67	C

Table 3

ATOM	4024	N	GLU	E	160	71.877	9.303	-24.612	1.00	47.12	N
ATOM	4025	CA	GLU	E	160	72.773	9.159	-23.469	1.00	47.32	C
ATOM	4026	C	GLU	E	160	71.976	9.235	-22.169	1.00	47.16	C
ATOM	4027	O	GLU	E	160	72.101	8.379	-21.299	1.00	47.06	O
ATOM	4028	CB	GLU	E	160	73.837	10.265	-23.494	1.00	47.70	C
ATOM	4029	N	LYS	E	161	71.144	10.265	-22.065	1.00	46.66	N
ATOM	4030	CA	LYS	E	161	70.311	10.491	-20.892	1.00	46.05	C
ATOM	4031	C	LYS	E	161	69.145	9.506	-20.757	1.00	45.11	C
ATOM	4032	O	LYS	E	161	68.353	9.626	-19.822	1.00	45.34	O
ATOM	4033	CB	LYS	E	161	69.756	11.923	-20.926	1.00	46.21	C
ATOM	4034	N	MET	E	162	69.038	8.548	-21.678	1.00	44.22	N
ATOM	4035	CA	MET	E	162	67.946	7.560	-21.659	1.00	43.37	C
ATOM	4036	C	MET	E	162	68.428	6.130	-21.400	1.00	43.15	C
ATOM	4037	O	MET	E	162	67.617	5.214	-21.232	1.00	42.92	O
ATOM	4038	CB	MET	E	162	67.181	7.569	-22.999	1.00	42.59	C
ATOM	4039	CG	MET	E	162	66.441	8.858	-23.359	1.00	42.12	C
ATOM	4040	SD	MET	E	162	65.737	8.805	-25.069	1.00	43.12	S
ATOM	4041	CE	MET	E	162	64.428	7.582	-24.869	1.00	41.06	C
ATOM	4042	N	GLU	E	163	69.742	5.937	-21.367	1.00	42.76	N
ATOM	4043	CA	GLU	E	163	70.316	4.605	-21.163	1.00	42.46	C
ATOM	4044	C	GLU	E	163	69.991	3.951	-19.814	1.00	41.50	C
ATOM	4045	O	GLU	E	163	69.837	2.728	-19.727	1.00	41.96	O
ATOM	4046	CB	GLU	E	163	71.837	4.667	-21.363	1.00	42.74	C
ATOM	4047	N	LYS	E	164	69.898	4.760	-18.765	1.00	39.99	N
ATOM	4048	CA	LYS	E	164	69.585	4.270	-17.422	1.00	38.16	C
ATOM	4049	C	LYS	E	164	68.083	3.937	-17.381	1.00	37.14	C
ATOM	4050	O	LYS	E	164	67.256	4.827	-17.185	1.00	37.33	O
ATOM	4051	CB	LYS	E	164	69.945	5.369	-16.410	1.00	36.48	C
ATOM	4052	CG	LYS	E	164	69.679	5.058	-14.947	1.00	36.37	C
ATOM	4053	CD	LYS	E	164	70.119	6.229	-14.072	1.00	37.37	C
ATOM	4054	CE	LYS	E	164	69.633	6.106	-12.638	1.00	38.14	C
ATOM	4055	NZ	LYS	E	164	69.990	7.292	-11.803	1.00	38.47	N
ATOM	4056	N	ARG	E	165	67.739	2.664	-17.580	1.00	36.23	N
ATOM	4057	CA	ARG	E	165	66.335	2.235	-17.596	1.00	35.70	C
ATOM	4058	C	ARG	E	165	65.707	2.067	-16.224	1.00	34.16	C
ATOM	4059	O	ARG	E	165	64.562	2.469	-16.011	1.00	32.97	O
ATOM	4060	CB	ARG	E	165	66.172	0.936	-18.392	1.00	36.74	C
ATOM	4061	CG	ARG	E	165	66.260	1.141	-19.899	1.00	39.91	C
ATOM	4062	CD	ARG	E	165	66.310	-0.183	-20.631	1.00	41.98	C
ATOM	4063	NE	ARG	E	165	66.734	-0.020	-22.017	1.00	44.67	N
ATOM	4064	CZ	ARG	E	165	65.920	0.248	-23.035	1.00	46.24	C
ATOM	4065	NH1	ARG	E	165	64.607	0.382	-22.840	1.00	46.06	N
ATOM	4066	NH2	ARG	E	165	66.428	0.392	-24.253	1.00	46.74	N
ATOM	4067	N	LEU	E	166	66.456	1.466	-15.305	1.00	33.11	N
ATOM	4068	CA	LEU	E	166	65.995	1.251	-13.938	1.00	32.45	C
ATOM	4069	C	LEU	E	166	66.407	2.422	-13.053	1.00	32.78	C
ATOM	4070	O	LEU	E	166	67.600	2.701	-12.911	1.00	32.57	O
ATOM	4071	CB	LEU	E	166	66.603	-0.034	-13.363	1.00	30.72	C
ATOM	4072	CG	LEU	E	166	66.452	-0.238	-11.842	1.00	31.40	C
ATOM	4073	CD1	LEU	E	166	64.982	-0.336	-11.443	1.00	29.68	C
ATOM	4074	CD2	LEU	E	166	67.179	-1.497	-11.430	1.00	31.08	C
ATOM	4075	N	HIS	E	167	65.421	3.102	-12.472	1.00	32.56	N
ATOM	4076	CA	HIS	E	167	65.657	4.223	-11.563	1.00	32.60	C
ATOM	4077	C	HIS	E	167	65.250	3.782	-10.170	1.00	32.67	C
ATOM	4078	O	HIS	E	167	64.053	3.731	-9.863	1.00	32.64	O
ATOM	4079	CB	HIS	E	167	64.799	5.438	-11.927	1.00	33.90	C
ATOM	4080	CG	HIS	E	167	65.393	6.322	-12.975	1.00	35.97	C
ATOM	4081	ND1	HIS	E	167	65.717	5.871	-14.237	1.00	37.14	N
ATOM	4082	CD2	HIS	E	167	65.711	7.638	-12.950	1.00	35.95	C
ATOM	4083	CE1	HIS	E	167	66.212	6.872	-14.944	1.00	36.75	C
ATOM	4084	NE2	HIS	E	167	66.217	7.954	-14.185	1.00	36.35	N
ATOM	4085	N	ALA	E	168	66.234	3.456	-9.337	1.00	31.87	N
ATOM	4086	CA	ALA	E	168	65.982	3.044	-7.960	1.00	31.90	C
ATOM	4087	C	ALA	E	168	66.360	4.250	-7.119	1.00	31.80	C
ATOM	4088	O	ALA	E	168	67.505	4.698	-7.162	1.00	31.50	O
ATOM	4089	CB	ALA	E	168	66.863	1.855	-7.586	1.00	32.12	C

Table 3

ATOM	4090	N	VAL	E	169	65.413	4.770	-6.351	1.00	31.54	N
ATOM	4091	CA	VAL	E	169	65.676	5.942	-5.531	1.00	32.05	C
ATOM	4092	C	VAL	E	169	65.116	5.822	-4.122	1.00	31.84	C
ATOM	4093	O	VAL	E	169	64.165	5.085	-3.876	1.00	31.58	O
ATOM	4094	CB	VAL	E	169	65.058	7.209	-6.158	1.00	33.04	C
ATOM	4095	CG1	VAL	E	169	65.520	7.359	-7.606	1.00	33.81	C
ATOM	4096	CG2	VAL	E	169	63.536	7.135	-6.077	1.00	32.98	C
ATOM	4097	N	PRO	E	170	65.705	6.564	-3.177	1.00	31.48	N
ATOM	4098	CA	PRO	E	170	65.226	6.517	-1.796	1.00	31.72	C
ATOM	4099	C	PRO	E	170	63.924	7.295	-1.658	1.00	32.29	C
ATOM	4100	O	PRO	E	170	63.715	8.310	-2.334	1.00	31.99	O
ATOM	4101	CB	PRO	E	170	66.380	7.135	-1.015	1.00	31.55	C
ATOM	4102	CG	PRO	E	170	66.954	8.136	-2.001	1.00	31.18	C
ATOM	4103	CD	PRO	E	170	66.904	7.408	-3.314	1.00	30.68	C
ATOM	4104	N	ALA	E	171	63.038	6.804	-0.795	1.00	33.07	N
ATOM	4105	CA	ALA	E	171	61.751	7.455	-0.557	1.00	33.03	C
ATOM	4106	C	ALA	E	171	61.931	8.925	-0.162	1.00	33.54	C
ATOM	4107	O	ALA	E	171	62.927	9.295	0.474	1.00	32.77	O
ATOM	4108	CB	ALA	E	171	60.988	6.718	0.534	1.00	32.87	C
ATOM	4109	N	ALA	E	172	60.964	9.754	-0.560	1.00	33.21	N
ATOM	4110	CA	ALA	E	172	60.947	11.185	-0.266	1.00	33.03	C
ATOM	4111	C	ALA	E	172	61.740	12.058	-1.238	1.00	33.63	C
ATOM	4112	O	ALA	E	172	61.736	13.287	-1.124	1.00	34.46	O
ATOM	4113	CB	ALA	E	172	61.400	11.443	1.187	1.00	34.01	C
ATOM	4114	N	ASN	E	173	62.415	11.435	-2.196	1.00	33.56	N
ATOM	4115	CA	ASN	E	173	63.166	12.197	-3.190	1.00	32.94	C
ATOM	4116	C	ASN	E	173	62.284	12.535	-4.384	1.00	31.99	C
ATOM	4117	O	ASN	E	173	61.169	12.036	-4.508	1.00	31.57	O
ATOM	4118	CB	ASN	E	173	64.391	11.405	-3.662	1.00	33.95	C
ATOM	4119	CG	ASN	E	173	65.628	11.723	-2.845	1.00	35.18	C
ATOM	4120	OD1	ASN	E	173	65.561	11.861	-1.625	1.00	34.81	O
ATOM	4121	ND2	ASN	E	173	66.766	11.840	-3.518	1.00	36.97	N
ATOM	4122	N	THR	E	174	62.789	13.401	-5.249	1.00	31.28	N
ATOM	4123	CA	THR	E	174	62.086	13.781	-6.462	1.00	30.65	C
ATOM	4124	C	THR	E	174	62.686	12.961	-7.598	1.00	30.83	C
ATOM	4125	O	THR	E	174	63.902	12.760	-7.639	1.00	31.45	O
ATOM	4126	CB	THR	E	174	62.282	15.275	-6.779	1.00	29.35	C
ATOM	4127	OG1	THR	E	174	61.465	16.058	-5.904	1.00	30.67	O
ATOM	4128	CG2	THR	E	174	61.914	15.568	-8.217	1.00	29.28	C
ATOM	4129	N	VAL	E	175	61.845	12.473	-8.507	1.00	30.88	N
ATOM	4130	CA	VAL	E	175	62.348	11.712	-9.638	1.00	30.80	C
ATOM	4131	C	VAL	E	175	61.974	12.419	-10.937	1.00	30.86	C
ATOM	4132	O	VAL	E	175	60.902	13.025	-11.054	1.00	31.51	O
ATOM	4133	CB	VAL	E	175	61.821	10.248	-9.627	1.00	31.74	C
ATOM	4134	CG1	VAL	E	175	60.319	10.233	-9.781	1.00	32.32	C
ATOM	4135	CG2	VAL	E	175	62.495	9.445	-10.738	1.00	31.70	C
ATOM	4136	N	LYS	E	176	62.878	12.374	-11.905	1.00	30.11	N
ATOM	4137	CA	LYS	E	176	62.633	13.014	-13.186	1.00	30.97	C
ATOM	4138	C	LYS	E	176	63.008	12.107	-14.357	1.00	30.93	C
ATOM	4139	O	LYS	E	176	64.146	11.636	-14.454	1.00	30.54	O
ATOM	4140	CB	LYS	E	176	63.421	14.331	-13.269	1.00	32.52	C
ATOM	4141	CG	LYS	E	176	63.251	15.108	-14.578	1.00	34.91	C
ATOM	4142	CD	LYS	E	176	63.964	16.489	-14.539	1.00	36.19	C
ATOM	4143	CE	LYS	E	176	63.966	17.158	-15.924	1.00	38.06	C
ATOM	4144	NZ	LYS	E	176	64.564	18.542	-15.996	1.00	38.65	N
ATOM	4145	N	PHE	E	177	62.043	11.847	-15.233	1.00	30.34	N
ATOM	4146	CA	PHE	E	177	62.293	11.022	-16.405	1.00	29.82	C
ATOM	4147	C	PHE	E	177	62.299	11.931	-17.615	1.00	29.71	C
ATOM	4148	O	PHE	E	177	61.473	12.834	-17.713	1.00	30.29	O
ATOM	4149	CB	PHE	E	177	61.207	9.965	-16.557	1.00	29.12	C
ATOM	4150	CG	PHE	E	177	61.217	8.934	-15.469	1.00	29.66	C
ATOM	4151	CD1	PHE	E	177	62.347	8.152	-15.249	1.00	29.65	C
ATOM	4152	CD2	PHE	E	177	60.095	8.725	-14.680	1.00	29.44	C
ATOM	4153	CE1	PHE	E	177	62.359	7.179	-14.266	1.00	29.37	C
ATOM	4154	CE2	PHE	E	177	60.095	7.752	-13.690	1.00	30.37	C
ATOM	4155	CZ	PHE	E	177	61.235	6.973	-13.484	1.00	29.78	C

Table 3

ATOM	4156	N	ARG	E	178	63.232	11.700	-18.531	1.00	29.90	N
ATOM	4157	CA	ARG	E	178	63.325	12.518	-19.737	1.00	30.18	C
ATOM	4158	C	ARG	E	178	63.414	11.697	-21.025	1.00	30.49	C
ATOM	4159	O	ARG	E	178	63.956	10.585	-21.040	1.00	28.47	O
ATOM	4160	CB	ARG	E	178	64.544	13.443	-19.659	1.00	31.50	C
ATOM	4161	CG	ARG	E	178	64.607	14.318	-18.410	1.00	35.87	C
ATOM	4162	CD	ARG	E	178	65.695	15.381	-18.567	1.00	37.95	C
ATOM	4163	NE	ARG	E	178	65.438	16.174	-19.766	1.00	41.27	N
ATOM	4164	CZ	ARG	E	178	66.350	16.890	-20.415	1.00	42.38	C
ATOM	4165	NH1	ARG	E	178	67.609	16.929	-19.983	1.00	43.71	N
ATOM	4166	NH2	ARG	E	178	66.007	17.545	-21.519	1.00	42.32	N
ATOM	4167	N	CYS	E	179	62.870	12.263	-22.102	1.00	30.09	N
ATOM	4168	CA	CYS	E	179	62.900	11.645	-23.415	1.00	31.40	C
ATOM	4169	C	CYS	E	179	63.079	12.753	-24.455	1.00	31.54	C
ATOM	4170	O	CYS	E	179	62.190	13.026	-25.260	1.00	30.99	O
ATOM	4171	CB	CYS	E	179	61.608	10.857	-23.646	1.00	32.04	C
ATOM	4172	SG	CYS	E	179	61.472	9.459	-22.503	1.00	33.20	S
ATOM	4173	N	PRO	E	180	64.253	13.412	-24.436	1.00	32.00	N
ATOM	4174	CA	PRO	E	180	64.578	14.504	-25.365	1.00	32.32	C
ATOM	4175	C	PRO	E	180	64.274	14.080	-26.789	1.00	32.64	C
ATOM	4176	O	PRO	E	180	64.824	13.092	-27.272	1.00	32.30	O
ATOM	4177	CB	PRO	E	180	66.076	14.713	-25.137	1.00	31.72	C
ATOM	4178	CG	PRO	E	180	66.238	14.376	-23.684	1.00	32.39	C
ATOM	4179	CD	PRO	E	180	65.394	13.113	-23.550	1.00	31.38	C
ATOM	4180	N	ALA	E	181	63.405	14.821	-27.466	1.00	33.54	N
ATOM	4181	CA	ALA	E	181	63.037	14.459	-28.823	1.00	34.81	C
ATOM	4182	C	ALA	E	181	63.051	15.604	-29.836	1.00	36.17	C
ATOM	4183	O	ALA	E	181	62.969	16.777	-29.476	1.00	35.97	O
ATOM	4184	CB	ALA	E	181	61.662	13.803	-28.806	1.00	33.94	C
ATOM	4185	N	GLY	E	182	63.149	15.228	-31.109	1.00	37.42	N
ATOM	4186	CA	GLY	E	182	63.141	16.184	-32.203	1.00	38.05	C
ATOM	4187	C	GLY	E	182	62.107	15.728	-33.215	1.00	38.82	C
ATOM	4188	O	GLY	E	182	61.548	14.634	-33.076	1.00	38.84	O
ATOM	4189	N	GLY	E	183	61.850	16.548	-34.232	1.00	39.61	N
ATOM	4190	CA	GLY	E	183	60.873	16.194	-35.248	1.00	39.37	C
ATOM	4191	C	GLY	E	183	60.209	17.403	-35.886	1.00	40.34	C
ATOM	4192	O	GLY	E	183	60.126	18.472	-35.276	1.00	39.97	O
ATOM	4193	N	ASN	E	184	59.735	17.239	-37.118	1.00	40.45	N
ATOM	4194	CA	ASN	E	184	59.068	18.322	-37.835	1.00	41.60	C
ATOM	4195	C	ASN	E	184	57.875	17.793	-38.627	1.00	41.71	C
ATOM	4196	O	ASN	E	184	58.038	17.046	-39.586	1.00	42.15	O
ATOM	4197	CB	ASN	E	184	60.054	19.020	-38.781	1.00	41.57	C
ATOM	4198	N	PRO	E	185	56.657	18.206	-38.258	1.00	42.39	N
ATOM	4199	CA	PRO	E	185	56.348	19.132	-37.163	1.00	42.99	C
ATOM	4200	C	PRO	E	185	56.699	18.635	-35.758	1.00	44.39	C
ATOM	4201	O	PRO	E	185	56.941	17.441	-35.541	1.00	44.92	O
ATOM	4202	CB	PRO	E	185	54.850	19.384	-37.343	1.00	42.48	C
ATOM	4203	CG	PRO	E	185	54.355	18.108	-37.914	1.00	42.87	C
ATOM	4204	CD	PRO	E	185	55.424	17.771	-38.938	1.00	42.74	C
ATOM	4205	N	MET	E	186	56.733	19.572	-34.810	1.00	44.67	N
ATOM	4206	CA	MET	E	186	57.044	19.276	-33.412	1.00	44.59	C
ATOM	4207	C	MET	E	186	56.137	18.167	-32.883	1.00	43.62	C
ATOM	4208	O	MET	E	186	54.917	18.304	-32.854	1.00	43.45	O
ATOM	4209	CB	MET	E	186	56.861	20.533	-32.551	1.00	46.17	C
ATOM	4210	CG	MET	E	186	57.269	20.364	-31.089	1.00	47.14	C
ATOM	4211	SD	MET	E	186	59.028	19.948	-30.944	1.00	50.88	S
ATOM	4212	CE	MET	E	186	59.755	21.534	-30.489	1.00	49.96	C
ATOM	4213	N	PRO	E	187	56.731	17.052	-32.444	1.00	42.84	N
ATOM	4214	CA	PRO	E	187	55.937	15.936	-31.925	1.00	42.11	C
ATOM	4215	C	PRO	E	187	55.327	16.199	-30.551	1.00	41.39	C
ATOM	4216	O	PRO	E	187	55.850	16.997	-29.771	1.00	40.66	O
ATOM	4217	CB	PRO	E	187	56.945	14.789	-31.897	1.00	42.56	C
ATOM	4218	CG	PRO	E	187	58.229	15.478	-31.584	1.00	42.73	C
ATOM	4219	CD	PRO	E	187	58.172	16.736	-32.434	1.00	42.58	C
ATOM	4220	N	THR	E	188	54.213	15.533	-30.261	1.00	40.80	N
ATOM	4221	CA	THR	E	188	53.570	15.694	-28.967	1.00	40.77	C

Table 3

ATOM	4222	C	THR	E	188	54.119	14.622	-28.039	1.00	40.73	C
ATOM	4223	O	THR	E	188	54.756	13.660	-28.476	1.00	40.10	O
ATOM	4224	CB	THR	E	188	52.042	15.522	-29.027	1.00	40.84	C
ATOM	4225	OG1	THR	E	188	51.728	14.136	-29.201	1.00	41.02	O
ATOM	4226	CG2	THR	E	188	51.453	16.330	-30.169	1.00	40.27	C
ATOM	4227	N	MET	E	189	53.867	14.791	-26.751	1.00	40.54	N
ATOM	4228	CA	MET	E	189	54.345	13.841	-25.764	1.00	41.01	C
ATOM	4229	C	MET	E	189	53.263	13.438	-24.781	1.00	39.45	C
ATOM	4230	O	MET	E	189	52.493	14.278	-24.318	1.00	38.97	O
ATOM	4231	CB	MET	E	189	55.523	14.432	-24.982	1.00	42.49	C
ATOM	4232	CG	MET	E	189	55.951	13.576	-23.791	1.00	45.02	C
ATOM	4233	SD	MET	E	189	57.378	14.250	-22.910	1.00	48.98	S
ATOM	4234	CE	MET	E	189	58.674	13.084	-23.501	1.00	48.53	C
ATOM	4235	N	ARG	E	190	53.222	12.146	-24.466	1.00	37.91	N
ATOM	4236	CA	ARG	E	190	52.264	11.603	-23.509	1.00	36.69	C
ATOM	4237	C	ARG	E	190	53.002	10.599	-22.625	1.00	34.83	C
ATOM	4238	O	ARG	E	190	53.896	9.891	-23.103	1.00	33.14	O
ATOM	4239	CB	ARG	E	190	51.122	10.875	-24.220	1.00	38.19	C
ATOM	4240	CG	ARG	E	190	50.527	11.607	-25.410	1.00	41.65	C
ATOM	4241	CD	ARG	E	190	49.163	11.021	-25.794	1.00	43.46	C
ATOM	4242	NE	ARG	E	190	49.161	9.560	-25.891	1.00	44.29	N
ATOM	4243	CZ	ARG	E	190	49.719	8.866	-26.878	1.00	45.19	C
ATOM	4244	NH1	ARG	E	190	50.338	9.495	-27.873	1.00	46.13	N
ATOM	4245	NH2	ARG	E	190	49.653	7.540	-26.874	1.00	44.60	N
ATOM	4246	N	TRP	E	191	52.639	10.539	-21.343	1.00	31.83	N
ATOM	4247	CA	TRP	E	191	53.269	9.586	-20.431	1.00	31.00	C
ATOM	4248	C	TRP	E	191	52.268	8.540	-19.908	1.00	30.76	C
ATOM	4249	O	TRP	E	191	51.138	8.867	-19.536	1.00	30.52	O
ATOM	4250	CB	TRP	E	191	53.937	10.301	-19.246	1.00	29.62	C
ATOM	4251	CG	TRP	E	191	55.187	11.072	-19.603	1.00	28.95	C
ATOM	4252	CD1	TRP	E	191	55.259	12.337	-20.128	1.00	29.00	C
ATOM	4253	CD2	TRP	E	191	56.540	10.612	-19.487	1.00	28.32	C
ATOM	4254	NE1	TRP	E	191	56.572	12.688	-20.344	1.00	28.22	N
ATOM	4255	CE2	TRP	E	191	57.378	11.649	-19.960	1.00	28.76	C
ATOM	4256	CE3	TRP	E	191	57.125	9.423	-19.030	1.00	29.22	C
ATOM	4257	CZ2	TRP	E	191	58.775	11.533	-19.985	1.00	29.04	C
ATOM	4258	CZ3	TRP	E	191	58.520	9.306	-19.060	1.00	30.17	C
ATOM	4259	CH2	TRP	E	191	59.326	10.359	-19.534	1.00	29.04	C
ATOM	4260	N	LEU	E	192	52.687	7.280	-19.905	1.00	29.28	N
ATOM	4261	CA	LEU	E	192	51.840	6.197	-19.421	1.00	29.58	C
ATOM	4262	C	LEU	E	192	52.428	5.583	-18.143	1.00	29.57	C
ATOM	4263	O	LEU	E	192	53.645	5.571	-17.958	1.00	30.74	O
ATOM	4264	CB	LEU	E	192	51.721	5.084	-20.477	1.00	28.80	C
ATOM	4265	CG	LEU	E	192	51.382	5.339	-21.958	1.00	30.27	C
ATOM	4266	CD1	LEU	E	192	51.448	4.015	-22.708	1.00	31.01	C
ATOM	4267	CD2	LEU	E	192	49.998	5.950	-22.115	1.00	29.80	C
ATOM	4268	N	LYS	E	193	51.559	5.097	-17.260	1.00	28.96	N
ATOM	4269	CA	LYS	E	193	51.986	4.412	-16.051	1.00	28.34	C
ATOM	4270	C	LYS	E	193	51.466	2.983	-16.225	1.00	29.18	C
ATOM	4271	O	LYS	E	193	50.257	2.763	-16.362	1.00	27.91	O
ATOM	4272	CB	LYS	E	193	51.371	5.023	-14.794	1.00	27.85	C
ATOM	4273	CG	LYS	E	193	51.762	4.267	-13.506	1.00	28.13	C
ATOM	4274	CD	LYS	E	193	51.139	4.882	-12.254	1.00	29.87	C
ATOM	4275	CE	LYS	E	193	51.541	4.112	-10.999	1.00	30.30	C
ATOM	4276	NZ	LYS	E	193	50.798	4.559	-9.789	1.00	28.18	N
ATOM	4277	N	ASN	E	194	52.376	2.013	-16.230	1.00	28.65	N
ATOM	4278	CA	ASN	E	194	51.990	0.620	-16.417	1.00	29.49	C
ATOM	4279	C	ASN	E	194	51.132	0.450	-17.682	1.00	30.66	C
ATOM	4280	O	ASN	E	194	50.069	-0.168	-17.642	1.00	30.92	O
ATOM	4281	CB	ASN	E	194	51.215	0.099	-15.195	1.00	27.12	C
ATOM	4282	CG	ASN	E	194	52.064	0.051	-13.934	1.00	27.31	C
ATOM	4283	OD1	ASN	E	194	53.271	-0.233	-13.987	1.00	25.63	O
ATOM	4284	ND2	ASN	E	194	51.433	0.310	-12.783	1.00	24.35	N
ATOM	4285	N	GLY	E	195	51.595	1.022	-18.792	1.00	31.66	N
ATOM	4286	CA	GLY	E	195	50.886	0.919	-20.060	1.00	32.64	C
ATOM	4287	C	GLY	E	195	49.528	1.601	-20.206	1.00	33.77	C

Table 3

ATOM	4288	O	GLY	E	195	48.838	1.357	-21.191	1.00	33.63	O
ATOM	4289	N	LYS	E	196	49.137	2.440	-19.247	1.00	34.77	N
ATOM	4290	CA	LYS	E	196	47.845	3.132	-19.314	1.00	36.07	C
ATOM	4291	C	LYS	E	196	48.029	4.615	-19.042	1.00	35.87	C
ATOM	4292	O	LYS	E	196	49.003	5.011	-18.405	1.00	35.40	O
ATOM	4293	CB	LYS	E	196	46.871	2.599	-18.258	1.00	37.29	C
ATOM	4294	CG	LYS	E	196	47.072	1.156	-17.820	1.00	40.01	C
ATOM	4295	CD	LYS	E	196	46.543	1.000	-16.393	1.00	42.51	C
ATOM	4296	CE	LYS	E	196	47.036	-0.269	-15.718	1.00	43.43	C
ATOM	4297	NZ	LYS	E	196	46.738	-0.231	-14.254	1.00	44.06	N
ATOM	4298	N	GLU	E	197	47.082	5.429	-19.504	1.00	36.09	N
ATOM	4299	CA	GLU	E	197	47.142	6.867	-19.275	1.00	35.90	C
ATOM	4300	C	GLU	E	197	47.445	7.136	-17.802	1.00	34.76	C
ATOM	4301	O	GLU	E	197	46.858	6.521	-16.915	1.00	34.16	O
ATOM	4302	CB	GLU	E	197	45.815	7.533	-19.672	1.00	37.72	C
ATOM	4303	CG	GLU	E	197	45.694	9.008	-19.247	1.00	39.18	C
ATOM	4304	CD	GLU	E	197	44.430	9.698	-19.778	1.00	41.13	C
ATOM	4305	OE1	GLU	E	197	43.397	9.016	-19.985	1.00	40.19	O
ATOM	4306	OE2	GLU	E	197	44.470	10.933	-19.969	1.00	40.93	O
ATOM	4307	N	PHE	E	198	48.384	8.046	-17.564	1.00	34.33	N
ATOM	4308	CA	PHE	E	198	48.805	8.427	-16.223	1.00	33.43	C
ATOM	4309	C	PHE	E	198	48.051	9.719	-15.917	1.00	34.28	C
ATOM	4310	O	PHE	E	198	48.245	10.725	-16.596	1.00	33.79	O
ATOM	4311	CB	PHE	E	198	50.321	8.669	-16.229	1.00	31.88	C
ATOM	4312	CG	PHE	E	198	50.939	8.873	-14.861	1.00	29.49	C
ATOM	4313	CD1	PHE	E	198	52.201	9.455	-14.750	1.00	28.38	C
ATOM	4314	CD2	PHE	E	198	50.293	8.461	-13.702	1.00	28.64	C
ATOM	4315	CE1	PHE	E	198	52.816	9.625	-13.494	1.00	27.94	C
ATOM	4316	CE2	PHE	E	198	50.901	8.625	-12.442	1.00	29.18	C
ATOM	4317	CZ	PHE	E	198	52.166	9.209	-12.345	1.00	26.63	C
ATOM	4318	N	LYS	E	199	47.190	9.680	-14.903	1.00	35.47	N
ATOM	4319	CA	LYS	E	199	46.383	10.841	-14.515	1.00	36.46	C
ATOM	4320	C	LYS	E	199	46.855	11.457	-13.209	1.00	36.29	C
ATOM	4321	O	LYS	E	199	47.434	10.772	-12.368	1.00	35.86	O
ATOM	4322	CB	LYS	E	199	44.920	10.436	-14.345	1.00	37.45	C
ATOM	4323	CG	LYS	E	199	44.182	10.086	-15.625	1.00	39.26	C
ATOM	4324	CD	LYS	E	199	42.923	9.300	-15.288	1.00	40.34	C
ATOM	4325	CE	LYS	E	199	41.879	9.432	-16.383	1.00	42.06	C
ATOM	4326	NZ	LYS	E	199	42.480	9.246	-17.726	1.00	42.43	N
ATOM	4327	N	GLN	E	200	46.572	12.746	-13.035	1.00	35.97	N
ATOM	4328	CA	GLN	E	200	46.957	13.464	-11.830	1.00	36.14	C
ATOM	4329	C	GLN	E	200	46.466	12.783	-10.555	1.00	36.13	C
ATOM	4330	O	GLN	E	200	47.177	12.746	-9.558	1.00	36.15	O
ATOM	4331	CB	GLN	E	200	46.428	14.905	-11.881	1.00	35.07	C
ATOM	4332	CG	GLN	E	200	47.097	15.794	-12.922	1.00	32.75	C
ATOM	4333	CD	GLN	E	200	48.565	16.049	-12.629	1.00	31.75	C
ATOM	4334	OE1	GLN	E	200	48.980	16.095	-11.472	1.00	31.98	O
ATOM	4335	NE2	GLN	E	200	49.352	16.238	-13.677	1.00	31.84	N
ATOM	4336	N	GLU	E	201	45.260	12.228	-10.590	1.00	36.20	N
ATOM	4337	CA	GLU	E	201	44.697	11.579	-9.410	1.00	36.53	C
ATOM	4338	C	GLU	E	201	45.307	10.212	-9.105	1.00	35.82	C
ATOM	4339	O	GLU	E	201	44.946	9.582	-8.113	1.00	34.99	O
ATOM	4340	CB	GLU	E	201	43.183	11.421	-9.569	1.00	37.47	C
ATOM	4341	CG	GLU	E	201	42.799	10.440	-10.651	1.00	40.87	C
ATOM	4342	CD	GLU	E	201	42.124	11.104	-11.834	1.00	43.50	C
ATOM	4343	OE1	GLU	E	201	42.719	12.037	-12.439	1.00	43.56	O
ATOM	4344	OE2	GLU	E	201	40.990	10.681	-12.154	1.00	44.02	O
ATOM	4345	N	HIS	E	202	46.216	9.746	-9.957	1.00	35.29	N
ATOM	4346	CA	HIS	E	202	46.847	8.444	-9.740	1.00	34.98	C
ATOM	4347	C	HIS	E	202	47.852	8.397	-8.572	1.00	34.41	C
ATOM	4348	O	HIS	E	202	48.291	7.313	-8.187	1.00	35.13	O
ATOM	4349	CB	HIS	E	202	47.514	7.940	-11.029	1.00	34.01	C
ATOM	4350	CG	HIS	E	202	46.547	7.437	-12.059	1.00	35.20	C
ATOM	4351	ND1	HIS	E	202	45.353	6.825	-11.729	1.00	35.20	N
ATOM	4352	CD2	HIS	E	202	46.611	7.424	-13.413	1.00	34.39	C
ATOM	4353	CE1	HIS	E	202	44.725	6.462	-12.833	1.00	33.57	C

Table 3

ATOM	4354	NE2	HIS	E	202	45.468	6.813	-13.869	1.00	34.45	N
ATOM	4355	N	ARG	E	203	48.216	9.556	-8.018	1.00	33.22	N
ATOM	4356	CA	ARG	E	203	49.130	9.613	-6.867	1.00	32.51	C
ATOM	4357	C	ARG	E	203	48.912	10.907	-6.080	1.00	32.39	C
ATOM	4358	O	ARG	E	203	48.459	11.906	-6.635	1.00	31.51	O
ATOM	4359	CB	ARG	E	203	50.605	9.523	-7.309	1.00	30.32	C
ATOM	4360	CG	ARG	E	203	51.174	10.814	-7.895	1.00	29.22	C
ATOM	4361	CD	ARG	E	203	52.563	10.591	-8.502	1.00	29.55	C
ATOM	4362	NE	ARG	E	203	53.557	10.178	-7.508	1.00	28.00	N
ATOM	4363	CZ	ARG	E	203	54.259	11.013	-6.749	1.00	26.43	C
ATOM	4364	NH1	ARG	E	203	54.093	12.323	-6.859	1.00	25.80	N
ATOM	4365	NH2	ARG	E	203	55.117	10.536	-5.860	1.00	27.50	N
ATOM	4366	N	ILE	E	204	49.215	10.880	-4.787	1.00	32.99	N
ATOM	4367	CA	ILE	E	204	49.061	12.069	-3.964	1.00	34.24	C
ATOM	4368	C	ILE	E	204	49.946	13.162	-4.559	1.00	34.70	C
ATOM	4369	O	ILE	E	204	51.125	12.928	-4.851	1.00	34.35	O
ATOM	4370	CB	ILE	E	204	49.496	11.810	-2.503	1.00	35.02	C
ATOM	4371	CG1	ILE	E	204	48.705	10.633	-1.918	1.00	35.18	C
ATOM	4372	CG2	ILE	E	204	49.296	13.083	-1.664	1.00	36.10	C
ATOM	4373	CD1	ILE	E	204	47.206	10.812	-1.957	1.00	34.74	C
ATOM	4374	N	GLY	E	205	49.364	14.341	-4.769	1.00	34.34	N
ATOM	4375	CA	GLY	E	205	50.115	15.454	-5.327	1.00	34.71	C
ATOM	4376	C	GLY	E	205	50.338	15.406	-6.832	1.00	34.80	C
ATOM	4377	O	GLY	E	205	50.963	16.308	-7.397	1.00	35.12	O
ATOM	4378	N	GLY	E	206	49.840	14.362	-7.490	1.00	33.63	N
ATOM	4379	CA	GLY	E	206	50.007	14.255	-8.932	1.00	33.94	C
ATOM	4380	C	GLY	E	206	51.436	14.357	-9.462	1.00	33.65	C
ATOM	4381	O	GLY	E	206	52.390	13.927	-8.815	1.00	32.95	O
ATOM	4382	N	TYR	E	207	51.586	14.924	-10.651	1.00	33.53	N
ATOM	4383	CA	TYR	E	207	52.904	15.080	-11.239	1.00	34.03	C
ATOM	4384	C	TYR	E	207	52.992	16.344	-12.079	1.00	34.49	C
ATOM	4385	O	TYR	E	207	51.989	17.036	-12.283	1.00	34.71	O
ATOM	4386	CB	TYR	E	207	53.257	13.860	-12.105	1.00	34.68	C
ATOM	4387	CG	TYR	E	207	52.320	13.631	-13.271	1.00	34.71	C
ATOM	4388	CD1	TYR	E	207	51.186	12.827	-13.133	1.00	34.16	C
ATOM	4389	CD2	TYR	E	207	52.557	14.237	-14.508	1.00	34.98	C
ATOM	4390	CE1	TYR	E	207	50.304	12.630	-14.201	1.00	35.89	C
ATOM	4391	CE2	TYR	E	207	51.673	14.049	-15.592	1.00	35.73	C
ATOM	4392	CZ	TYR	E	207	50.551	13.248	-15.424	1.00	35.64	C
ATOM	4393	OH	TYR	E	207	49.660	13.090	-16.458	1.00	36.29	O
ATOM	4394	N	LYS	E	208	54.196	16.637	-12.566	1.00	34.28	N
ATOM	4395	CA	LYS	E	208	54.440	17.814	-13.391	1.00	35.05	C
ATOM	4396	C	LYS	E	208	55.157	17.431	-14.677	1.00	37.11	C
ATOM	4397	O	LYS	E	208	55.993	16.526	-14.690	1.00	36.91	O
ATOM	4398	CB	LYS	E	208	55.298	18.837	-12.635	1.00	34.30	C
ATOM	4399	CG	LYS	E	208	54.680	19.377	-11.362	1.00	33.60	C
ATOM	4400	CD	LYS	E	208	55.696	20.177	-10.562	1.00	32.63	C
ATOM	4401	CE	LYS	E	208	55.100	20.639	-9.241	1.00	32.80	C
ATOM	4402	NZ	LYS	E	208	56.080	21.379	-8.404	1.00	32.69	N
ATOM	4403	N	VAL	E	209	54.824	18.119	-15.761	1.00	38.97	N
ATOM	4404	CA	VAL	E	209	55.449	17.860	-17.047	1.00	41.04	C
ATOM	4405	C	VAL	E	209	55.932	19.162	-17.671	1.00	42.95	C
ATOM	4406	O	VAL	E	209	55.197	20.151	-17.727	1.00	44.04	O
ATOM	4407	CB	VAL	E	209	54.476	17.152	-18.026	1.00	40.56	C
ATOM	4408	CG1	VAL	E	209	55.001	17.246	-19.444	1.00	41.33	C
ATOM	4409	CG2	VAL	E	209	54.320	15.689	-17.637	1.00	39.57	C
ATOM	4410	N	ARG	E	210	57.182	19.158	-18.118	1.00	44.27	N
ATOM	4411	CA	ARG	E	210	57.776	20.323	-18.760	1.00	45.71	C
ATOM	4412	C	ARG	E	210	58.059	19.952	-20.219	1.00	46.45	C
ATOM	4413	O	ARG	E	210	59.105	19.382	-20.533	1.00	46.98	O
ATOM	4414	CB	ARG	E	210	59.073	20.718	-18.047	1.00	45.37	C
ATOM	4415	N	ASN	E	211	57.114	20.266	-21.103	1.00	47.44	N
ATOM	4416	CA	ASN	E	211	57.246	19.959	-22.526	1.00	47.92	C
ATOM	4417	C	ASN	E	211	58.580	20.424	-23.107	1.00	47.84	C
ATOM	4418	O	ASN	E	211	59.194	19.721	-23.911	1.00	47.98	O
ATOM	4419	CB	ASN	E	211	56.093	20.588	-23.313	1.00	47.89	C

Table 3

ATOM	4420	N	GLN	E	212	59.028	21.605	-22.693	1.00	47.52	N
ATOM	4421	CA	GLN	E	212	60.295	22.159	-23.175	1.00	47.00	C
ATOM	4422	C	GLN	E	212	61.479	21.228	-22.886	1.00	46.08	C
ATOM	4423	O	GLN	E	212	62.469	21.233	-23.618	1.00	46.55	O
ATOM	4424	CB	GLN	E	212	60.552	23.534	-22.540	1.00	46.95	C
ATOM	4425	N	HIS	E	213	61.380	20.429	-21.826	1.00	44.00	N
ATOM	4426	CA	HIS	E	213	62.457	19.503	-21.477	1.00	42.28	C
ATOM	4427	C	HIS	E	213	62.090	18.030	-21.713	1.00	40.55	C
ATOM	4428	O	HIS	E	213	62.875	17.141	-21.391	1.00	39.90	O
ATOM	4429	CB	HIS	E	213	62.862	19.694	-20.010	1.00	42.11	C
ATOM	4430	N	TRP	E	214	60.907	17.783	-22.277	1.00	38.70	N
ATOM	4431	CA	TRP	E	214	60.435	16.417	-22.541	1.00	36.92	C
ATOM	4432	C	TRP	E	214	60.559	15.583	-21.270	1.00	35.61	C
ATOM	4433	O	TRP	E	214	61.058	14.456	-21.298	1.00	34.98	O
ATOM	4434	CB	TRP	E	214	61.273	15.768	-23.653	1.00	36.91	C
ATOM	4435	CG	TRP	E	214	61.368	16.612	-24.879	1.00	37.66	C
ATOM	4436	CD1	TRP	E	214	62.336	17.538	-25.172	1.00	37.83	C
ATOM	4437	CD2	TRP	E	214	60.411	16.683	-25.940	1.00	37.72	C
ATOM	4438	NE1	TRP	E	214	62.032	18.184	-26.347	1.00	37.30	N
ATOM	4439	CE2	TRP	E	214	60.856	17.679	-26.839	1.00	37.75	C
ATOM	4440	CE3	TRP	E	214	59.215	16.003	-26.219	1.00	37.31	C
ATOM	4441	CZ2	TRP	E	214	60.149	18.012	-27.997	1.00	37.75	C
ATOM	4442	CZ3	TRP	E	214	58.513	16.333	-27.370	1.00	37.71	C
ATOM	4443	CH2	TRP	E	214	58.982	17.329	-28.245	1.00	37.98	C
ATOM	4444	N	SER	E	215	60.090	16.125	-20.154	1.00	33.93	N
ATOM	4445	CA	SER	E	215	60.230	15.427	-18.885	1.00	32.72	C
ATOM	4446	C	SER	E	215	58.961	15.219	-18.060	1.00	31.96	C
ATOM	4447	O	SER	E	215	57.983	15.968	-18.180	1.00	31.78	O
ATOM	4448	CB	SER	E	215	61.244	16.180	-18.034	1.00	32.88	C
ATOM	4449	OG	SER	E	215	60.780	17.503	-17.814	1.00	32.58	O
ATOM	4450	N	LEU	E	216	59.020	14.200	-17.206	1.00	30.06	N
ATOM	4451	CA	LEU	E	216	57.942	13.847	-16.281	1.00	29.24	C
ATOM	4452	C	LEU	E	216	58.569	13.946	-14.896	1.00	28.06	C
ATOM	4453	O	LEU	E	216	59.607	13.333	-14.643	1.00	27.98	O
ATOM	4454	CB	LEU	E	216	57.464	12.408	-16.511	1.00	28.20	C
ATOM	4455	CG	LEU	E	216	56.584	11.871	-15.375	1.00	28.64	C
ATOM	4456	CD1	LEU	E	216	55.273	12.639	-15.364	1.00	28.75	C
ATOM	4457	CD2	LEU	E	216	56.321	10.378	-15.553	1.00	28.80	C
ATOM	4458	N	ILE	E	217	57.940	14.700	-14.004	1.00	27.85	N
ATOM	4459	CA	ILE	E	217	58.445	14.903	-12.648	1.00	27.94	C
ATOM	4460	C	ILE	E	217	57.496	14.452	-11.543	1.00	28.38	C
ATOM	4461	O	ILE	E	217	56.320	14.838	-11.532	1.00	27.95	O
ATOM	4462	CB	ILE	E	217	58.758	16.394	-12.426	1.00	28.53	C
ATOM	4463	CG1	ILE	E	217	59.912	16.804	-13.343	1.00	29.98	C
ATOM	4464	CG2	ILE	E	217	59.082	16.671	-10.946	1.00	27.96	C
ATOM	4465	CD1	ILE	E	217	60.168	18.306	-13.386	1.00	31.27	C
ATOM	4466	N	MET	E	218	58.011	13.638	-10.621	1.00	27.96	N
ATOM	4467	CA	MET	E	218	57.233	13.159	-9.480	1.00	29.17	C
ATOM	4468	C	MET	E	218	58.005	13.504	-8.198	1.00	29.88	C
ATOM	4469	O	MET	E	218	59.137	13.059	-7.993	1.00	30.35	O
ATOM	4470	CB	MET	E	218	56.993	11.645	-9.580	1.00	29.88	C
ATOM	4471	CG	MET	E	218	56.119	11.234	-10.779	1.00	30.14	C
ATOM	4472	SD	MET	E	218	55.773	9.449	-10.866	1.00	31.91	S
ATOM	4473	CE	MET	E	218	57.255	8.866	-11.591	1.00	31.93	C
ATOM	4474	N	GLU	E	219	57.388	14.315	-7.347	1.00	29.54	N
ATOM	4475	CA	GLU	E	219	58.007	14.744	-6.097	1.00	29.59	C
ATOM	4476	C	GLU	E	219	57.629	13.851	-4.917	1.00	29.81	C
ATOM	4477	O	GLU	E	219	56.560	13.242	-4.915	1.00	29.98	O
ATOM	4478	CB	GLU	E	219	57.610	16.200	-5.829	1.00	29.31	C
ATOM	4479	CG	GLU	E	219	58.021	17.135	-6.972	1.00	29.10	C
ATOM	4480	CD	GLU	E	219	57.169	18.384	-7.044	1.00	29.99	C
ATOM	4481	OE1	GLU	E	219	55.943	18.253	-6.868	1.00	28.69	O
ATOM	4482	OE2	GLU	E	219	57.717	19.490	-7.286	1.00	31.38	O
ATOM	4483	N	SER	E	220	58.528	13.764	-3.935	1.00	29.65	N
ATOM	4484	CA	SER	E	220	58.333	12.967	-2.723	1.00	30.35	C
ATOM	4485	C	SER	E	220	57.809	11.560	-2.985	1.00	30.26	C

ATOM	4486	O	SER	E	220	56.751	11.182	-2.480	1.00	29.71	O
ATOM	4487	CB	SER	E	220	57.376	13.689	-1.764	1.00	31.53	C
ATOM	4488	OG	SER	E	220	57.815	15.014	-1.511	1.00	32.75	O
ATOM	4489	N	VAL	E	221	58.559	10.775	-3.750	1.00	29.92	N
ATOM	4490	CA	VAL	E	221	58.142	9.416	-4.090	1.00	29.80	C
ATOM	4491	C	VAL	E	221	57.992	8.497	-2.869	1.00	30.61	C
ATOM	4492	O	VAL	E	221	58.656	8.680	-1.838	1.00	30.25	O
ATOM	4493	CB	VAL	E	221	59.125	8.776	-5.120	1.00	30.18	C
ATOM	4494	CG1	VAL	E	221	59.311	9.715	-6.310	1.00	29.28	C
ATOM	4495	CG2	VAL	E	221	60.476	8.496	-4.475	1.00	29.72	C
ATOM	4496	N	VAL	E	222	57.092	7.524	-2.994	1.00	30.94	N
ATOM	4497	CA	VAL	E	222	56.813	6.550	-1.945	1.00	31.89	C
ATOM	4498	C	VAL	E	222	56.772	5.170	-2.597	1.00	33.21	C
ATOM	4499	O	VAL	E	222	56.720	5.058	-3.823	1.00	33.31	O
ATOM	4500	CB	VAL	E	222	55.434	6.823	-1.235	1.00	32.49	C
ATOM	4501	CG1	VAL	E	222	55.467	8.160	-0.495	1.00	33.19	C
ATOM	4502	CG2	VAL	E	222	54.295	6.816	-2.257	1.00	31.82	C
ATOM	4503	N	PRO	E	223	56.811	4.100	-1.784	1.00	34.13	N
ATOM	4504	CA	PRO	E	223	56.779	2.725	-2.292	1.00	33.89	C
ATOM	4505	C	PRO	E	223	55.724	2.452	-3.360	1.00	33.67	C
ATOM	4506	O	PRO	E	223	55.995	1.758	-4.335	1.00	33.72	O
ATOM	4507	CB	PRO	E	223	56.548	1.903	-1.023	1.00	34.43	C
ATOM	4508	CG	PRO	E	223	57.372	2.657	-0.022	1.00	34.86	C
ATOM	4509	CD	PRO	E	223	56.978	4.105	-0.319	1.00	34.62	C
ATOM	4510	N	SER	E	224	54.528	3.006	-3.185	1.00	32.74	N
ATOM	4511	CA	SER	E	224	53.448	2.789	-4.138	1.00	31.97	C
ATOM	4512	C	SER	E	224	53.709	3.334	-5.549	1.00	31.69	C
ATOM	4513	O	SER	E	224	53.001	2.977	-6.489	1.00	31.29	O
ATOM	4514	CB	SER	E	224	52.144	3.381	-3.590	1.00	32.09	C
ATOM	4515	OG	SER	E	224	52.261	4.783	-3.398	1.00	32.79	O
ATOM	4516	N	ASP	E	225	54.712	4.198	-5.704	1.00	31.22	N
ATOM	4517	CA	ASP	E	225	55.037	4.758	-7.023	1.00	30.43	C
ATOM	4518	C	ASP	E	225	55.774	3.757	-7.928	1.00	30.38	C
ATOM	4519	O	ASP	E	225	55.958	4.002	-9.125	1.00	29.76	O
ATOM	4520	CB	ASP	E	225	55.901	6.018	-6.885	1.00	29.19	C
ATOM	4521	CG	ASP	E	225	55.128	7.221	-6.357	1.00	28.97	C
ATOM	4522	OD1	ASP	E	225	53.977	7.464	-6.809	1.00	25.87	O
ATOM	4523	OD2	ASP	E	225	55.694	7.940	-5.505	1.00	26.42	O
ATOM	4524	N	LYS	E	226	56.206	2.639	-7.350	1.00	30.23	N
ATOM	4525	CA	LYS	E	226	56.913	1.615	-8.113	1.00	30.24	C
ATOM	4526	C	LYS	E	226	56.081	1.193	-9.323	1.00	29.94	C
ATOM	4527	O	LYS	E	226	54.871	1.019	-9.206	1.00	29.84	O
ATOM	4528	CB	LYS	E	226	57.202	0.399	-7.223	1.00	29.99	C
ATOM	4529	CG	LYS	E	226	57.794	-0.806	-7.964	1.00	30.78	C
ATOM	4530	CD	LYS	E	226	58.129	-1.933	-6.992	1.00	30.41	C
ATOM	4531	CE	LYS	E	226	58.826	-3.099	-7.694	1.00	33.17	C
ATOM	4532	NZ	LYS	E	226	59.329	-4.124	-6.720	1.00	32.61	N
ATOM	4533	N	GLY	E	227	56.737	1.038	-10.477	1.00	29.05	N
ATOM	4534	CA	GLY	E	227	56.046	0.638	-11.693	1.00	28.94	C
ATOM	4535	C	GLY	E	227	56.776	1.071	-12.957	1.00	29.12	C
ATOM	4536	O	GLY	E	227	57.935	1.490	-12.903	1.00	28.36	O
ATOM	4537	N	ASN	E	228	56.109	0.956	-14.100	1.00	28.95	N
ATOM	4538	CA	ASN	E	228	56.701	1.351	-15.374	1.00	29.57	C
ATOM	4539	C	ASN	E	228	56.124	2.673	-15.864	1.00	28.26	C
ATOM	4540	O	ASN	E	228	54.918	2.903	-15.768	1.00	28.23	O
ATOM	4541	CB	ASN	E	228	56.455	0.294	-16.458	1.00	32.45	C
ATOM	4542	CG	ASN	E	228	57.048	-1.054	-16.106	1.00	35.12	C
ATOM	4543	OD1	ASN	E	228	58.112	-1.139	-15.503	1.00	36.41	O
ATOM	4544	ND2	ASN	E	228	56.365	-2.116	-16.498	1.00	37.00	N
ATOM	4545	N	TYR	E	229	56.995	3.532	-16.387	1.00	26.32	N
ATOM	4546	CA	TYR	E	229	56.591	4.827	-16.921	1.00	25.19	C
ATOM	4547	C	TYR	E	229	57.097	4.935	-18.350	1.00	25.34	C
ATOM	4548	O	TYR	E	229	58.306	4.882	-18.616	1.00	24.46	O
ATOM	4549	CB	TYR	E	229	57.132	5.964	-16.053	1.00	23.37	C
ATOM	4550	CG	TYR	E	229	56.572	5.928	-14.650	1.00	24.79	C
ATOM	4551	CD1	TYR	E	229	57.101	5.068	-13.691	1.00	24.70	C

ATOM	4552	CD2	TYR	E	229	55.447	6.689	-14.306	1.00	24.93	C
ATOM	4553	CE1	TYR	E	229	56.521	4.954	-12.432	1.00	26.06	C
ATOM	4554	CE2	TYR	E	229	54.865	6.586	-13.059	1.00	23.86	C
ATOM	4555	CZ	TYR	E	229	55.396	5.714	-12.126	1.00	26.06	C
ATOM	4556	OH	TYR	E	229	54.769	5.550	-10.912	1.00	25.94	O
ATOM	4557	N	THR	E	230	56.150	5.085	-19.271	1.00	25.17	N
ATOM	4558	CA	THR	E	230	56.454	5.151	-20.694	1.00	24.43	C
ATOM	4559	C	THR	E	230	56.142	6.485	-21.349	1.00	24.97	C
ATOM	4560	O	THR	E	230	55.070	7.064	-21.156	1.00	24.36	O
ATOM	4561	CB	THR	E	230	55.666	4.071	-21.457	1.00	24.48	C
ATOM	4562	OG1	THR	E	230	55.930	2.795	-20.863	1.00	24.81	O
ATOM	4563	CG2	THR	E	230	56.057	4.055	-22.931	1.00	22.29	C
ATOM	4564	N	CYS	E	231	57.086	6.963	-22.144	1.00	26.19	N
ATOM	4565	CA	CYS	E	231	56.899	8.212	-22.862	1.00	27.54	C
ATOM	4566	C	CYS	E	231	56.607	7.858	-24.317	1.00	27.22	C
ATOM	4567	O	CYS	E	231	57.333	7.065	-24.916	1.00	26.23	O
ATOM	4568	CB	CYS	E	231	58.168	9.062	-22.783	1.00	27.82	C
ATOM	4569	SG	CYS	E	231	59.585	8.263	-23.576	1.00	31.09	S
ATOM	4570	N	VAL	E	232	55.533	8.427	-24.860	1.00	28.00	N
ATOM	4571	CA	VAL	E	232	55.136	8.214	-26.249	1.00	29.12	C
ATOM	4572	C	VAL	E	232	55.235	9.563	-26.970	1.00	29.74	C
ATOM	4573	O	VAL	E	232	54.641	10.541	-26.546	1.00	31.15	O
ATOM	4574	CB	VAL	E	232	53.693	7.700	-26.340	1.00	29.29	C
ATOM	4575	CG1	VAL	E	232	53.306	7.485	-27.798	1.00	28.53	C
ATOM	4576	CG2	VAL	E	232	53.557	6.407	-25.549	1.00	29.10	C
ATOM	4577	N	VAL	E	233	56.001	9.607	-28.051	1.00	30.49	N
ATOM	4578	CA	VAL	E	233	56.202	10.833	-28.807	1.00	31.77	C
ATOM	4579	C	VAL	E	233	55.755	10.626	-30.254	1.00	32.47	C
ATOM	4580	O	VAL	E	233	56.157	9.651	-30.903	1.00	32.76	O
ATOM	4581	CB	VAL	E	233	57.694	11.243	-28.779	1.00	31.18	C
ATOM	4582	CG1	VAL	E	233	57.866	12.612	-29.379	1.00	33.05	C
ATOM	4583	CG2	VAL	E	233	58.199	11.250	-27.352	1.00	32.93	C
ATOM	4584	N	GLU	E	234	54.951	11.551	-30.773	1.00	32.15	N
ATOM	4585	CA	GLU	E	234	54.444	11.390	-32.129	1.00	33.60	C
ATOM	4586	C	GLU	E	234	54.082	12.639	-32.948	1.00	33.59	C
ATOM	4587	O	GLU	E	234	53.832	13.713	-32.405	1.00	33.70	O
ATOM	4588	CB	GLU	E	234	53.210	10.480	-32.068	1.00	33.20	C
ATOM	4589	N	ASN	E	235	54.068	12.460	-34.267	1.00	34.11	N
ATOM	4590	CA	ASN	E	235	53.657	13.483	-35.233	1.00	34.29	C
ATOM	4591	C	ASN	E	235	53.084	12.694	-36.411	1.00	35.08	C
ATOM	4592	O	ASN	E	235	52.958	11.470	-36.314	1.00	34.59	O
ATOM	4593	CB	ASN	E	235	54.810	14.414	-35.664	1.00	33.28	C
ATOM	4594	CG	ASN	E	235	55.900	13.708	-36.447	1.00	33.88	C
ATOM	4595	OD1	ASN	E	235	55.730	12.583	-36.910	1.00	33.30	O
ATOM	4596	ND2	ASN	E	235	57.036	14.385	-36.609	1.00	34.18	N
ATOM	4597	N	GLU	E	236	52.738	13.358	-37.512	1.00	36.42	N
ATOM	4598	CA	GLU	E	236	52.138	12.629	-38.636	1.00	38.00	C
ATOM	4599	C	GLU	E	236	53.011	11.594	-39.343	1.00	37.78	C
ATOM	4600	O	GLU	E	236	52.486	10.739	-40.053	1.00	37.97	O
ATOM	4601	CB	GLU	E	236	51.531	13.595	-39.664	1.00	40.24	C
ATOM	4602	CG	GLU	E	236	52.492	14.582	-40.284	1.00	43.86	C
ATOM	4603	CD	GLU	E	236	51.790	15.531	-41.242	1.00	46.25	C
ATOM	4604	OE1	GLU	E	236	51.225	15.059	-42.255	1.00	47.28	O
ATOM	4605	OE2	GLU	E	236	51.803	16.750	-40.976	1.00	47.49	O
ATOM	4606	N	TYR	E	237	54.323	11.640	-39.121	1.00	37.33	N
ATOM	4607	CA	TYR	E	237	55.242	10.708	-39.766	1.00	37.35	C
ATOM	4608	C	TYR	E	237	55.754	9.569	-38.867	1.00	35.98	C
ATOM	4609	O	TYR	E	237	56.577	8.758	-39.290	1.00	35.90	O
ATOM	4610	CB	TYR	E	237	56.415	11.508	-40.346	1.00	38.92	C
ATOM	4611	CG	TYR	E	237	55.957	12.649	-41.233	1.00	41.25	C
ATOM	4612	CD1	TYR	E	237	56.460	13.943	-41.059	1.00	43.19	C
ATOM	4613	CD2	TYR	E	237	55.004	12.444	-42.226	1.00	42.47	C
ATOM	4614	CE1	TYR	E	237	56.018	15.008	-41.855	1.00	44.62	C
ATOM	4615	CE2	TYR	E	237	54.554	13.495	-43.026	1.00	44.57	C
ATOM	4616	CZ	TYR	E	237	55.062	14.777	-42.835	1.00	45.49	C
ATOM	4617	OH	TYR	E	237	54.598	15.822	-43.609	1.00	46.29	O

Table 3

ATOM	4618	N	GLY	E	238	55.275	9.497	-37.632	1.00	34.97	N
ATOM	4619	CA	GLY	E	238	55.731	8.417	-36.777	1.00	33.97	C
ATOM	4620	C	GLY	E	238	55.405	8.507	-35.303	1.00	33.08	C
ATOM	4621	O	GLY	E	238	54.983	9.548	-34.803	1.00	32.50	O
ATOM	4622	N	SER	E	239	55.617	7.390	-34.612	1.00	32.34	N
ATOM	4623	CA	SER	E	239	55.369	7.282	-33.181	1.00	31.81	C
ATOM	4624	C	SER	E	239	56.404	6.351	-32.543	1.00	30.71	C
ATOM	4625	O	SER	E	239	56.567	5.211	-32.980	1.00	30.65	O
ATOM	4626	CB	SER	E	239	53.954	6.739	-32.942	1.00	30.90	C
ATOM	4627	OG	SER	E	239	53.628	6.735	-31.563	1.00	33.07	O
ATOM	4628	N	ILE	E	240	57.091	6.834	-31.510	1.00	29.56	N
ATOM	4629	CA	ILE	E	240	58.112	6.042	-30.827	1.00	28.65	C
ATOM	4630	C	ILE	E	240	57.935	6.162	-29.318	1.00	28.96	C
ATOM	4631	O	ILE	E	240	57.382	7.152	-28.830	1.00	30.00	O
ATOM	4632	CB	ILE	E	240	59.528	6.514	-31.210	1.00	28.14	C
ATOM	4633	CG1	ILE	E	240	59.726	7.960	-30.758	1.00	28.72	C
ATOM	4634	CG2	ILE	E	240	59.712	6.435	-32.729	1.00	26.24	C
ATOM	4635	CD1	ILE	E	240	61.132	8.520	-31.032	1.00	29.86	C
ATOM	4636	N	ASN	E	241	58.405	5.157	-28.582	1.00	27.76	N
ATOM	4637	CA	ASN	E	241	58.284	5.147	-27.136	1.00	26.27	C
ATOM	4638	C	ASN	E	241	59.499	4.531	-26.439	1.00	26.41	C
ATOM	4639	O	ASN	E	241	60.301	3.815	-27.058	1.00	25.18	O
ATOM	4640	CB	ASN	E	241	57.018	4.384	-26.711	1.00	25.29	C
ATOM	4641	CG	ASN	E	241	56.946	2.983	-27.311	1.00	27.08	C
ATOM	4642	OD1	ASN	E	241	56.345	2.769	-28.374	1.00	29.98	O
ATOM	4643	ND2	ASN	E	241	57.578	2.032	-26.652	1.00	26.55	N
ATOM	4644	N	HIS	E	242	59.610	4.819	-25.145	1.00	26.04	N
ATOM	4645	CA	HIS	E	242	60.693	4.317	-24.309	1.00	27.09	C
ATOM	4646	C	HIS	E	242	60.130	4.097	-22.913	1.00	26.68	C
ATOM	4647	O	HIS	E	242	59.274	4.865	-22.464	1.00	26.32	O
ATOM	4648	CB	HIS	E	242	61.833	5.325	-24.233	1.00	28.10	C
ATOM	4649	CG	HIS	E	242	62.957	4.888	-23.352	1.00	29.54	C
ATOM	4650	ND1	HIS	E	242	63.851	3.904	-23.716	1.00	30.25	N
ATOM	4651	CD2	HIS	E	242	63.341	5.309	-22.124	1.00	31.00	C
ATOM	4652	CE1	HIS	E	242	64.742	3.744	-22.754	1.00	32.05	C
ATOM	4653	NE2	HIS	E	242	64.455	4.585	-21.778	1.00	32.16	N
ATOM	4654	N	THR	E	243	60.617	3.068	-22.225	1.00	26.12	N
ATOM	4655	CA	THR	E	243	60.112	2.759	-20.893	1.00	26.90	C
ATOM	4656	C	THR	E	243	61.134	2.756	-19.770	1.00	27.39	C
ATOM	4657	O	THR	E	243	62.219	2.202	-19.908	1.00	27.23	O
ATOM	4658	CB	THR	E	243	59.377	1.381	-20.871	1.00	26.77	C
ATOM	4659	OG1	THR	E	243	58.225	1.439	-21.716	1.00	25.38	O
ATOM	4660	CG2	THR	E	243	58.917	1.032	-19.449	1.00	26.06	C
ATOM	4661	N	TYR	E	244	60.757	3.390	-18.662	1.00	27.91	N
ATOM	4662	CA	TYR	E	244	61.581	3.460	-17.465	1.00	29.32	C
ATOM	4663	C	TYR	E	244	60.898	2.640	-16.370	1.00	30.85	C
ATOM	4664	O	TYR	E	244	59.677	2.506	-16.354	1.00	30.71	O
ATOM	4665	CB	TYR	E	244	61.723	4.899	-16.960	1.00	27.74	C
ATOM	4666	CG	TYR	E	244	62.566	5.802	-17.828	1.00	27.95	C
ATOM	4667	CD1	TYR	E	244	61.987	6.840	-18.564	1.00	26.62	C
ATOM	4668	CD2	TYR	E	244	63.951	5.640	-17.888	1.00	26.74	C
ATOM	4669	CE1	TYR	E	244	62.769	7.696	-19.334	1.00	27.44	C
ATOM	4670	CE2	TYR	E	244	64.739	6.481	-18.651	1.00	27.77	C
ATOM	4671	CZ	TYR	E	244	64.147	7.511	-19.371	1.00	28.12	C
ATOM	4672	OH	TYR	E	244	64.943	8.350	-20.107	1.00	27.83	O
ATOM	4673	N	HIS	E	245	61.693	2.088	-15.464	1.00	31.97	N
ATOM	4674	CA	HIS	E	245	61.161	1.322	-14.349	1.00	33.12	C
ATOM	4675	C	HIS	E	245	61.552	2.073	-13.083	1.00	33.00	C
ATOM	4676	O	HIS	E	245	62.706	2.472	-12.929	1.00	32.70	O
ATOM	4677	CB	HIS	E	245	61.760	-0.085	-14.341	1.00	34.97	C
ATOM	4678	CG	HIS	E	245	61.552	-0.826	-15.629	1.00	37.68	C
ATOM	4679	ND1	HIS	E	245	60.342	-1.378	-15.982	1.00	38.21	N
ATOM	4680	CD2	HIS	E	245	62.396	-1.081	-16.657	1.00	39.69	C
ATOM	4681	CE1	HIS	E	245	60.444	-1.941	-17.175	1.00	38.71	C
ATOM	4682	NE2	HIS	E	245	61.684	-1.772	-17.607	1.00	39.57	N
ATOM	4683	N	LEU	E	246	60.594	2.292	-12.190	1.00	32.23	N

Table 3

ATOM	4684	CA	LEU	E	246	60.886	3.001	-10.951	1.00	32.14	C
ATOM	4685	C	LEU	E	246	60.742	2.103	-9.728	1.00	33.28	C
ATOM	4686	O	LEU	E	246	59.802	1.309	-9.628	1.00	34.04	O
ATOM	4687	CB	LEU	E	246	59.974	4.228	-10.794	1.00	29.30	C
ATOM	4688	CG	LEU	E	246	60.035	4.965	-9.443	1.00	28.46	C
ATOM	4689	CD1	LEU	E	246	61.416	5.654	-9.272	1.00	27.02	C
ATOM	4690	CD2	LEU	E	246	58.903	6.010	-9.365	1.00	24.91	C
ATOM	4691	N	ASP	E	247	61.690	2.224	-8.804	1.00	34.64	N
ATOM	4692	CA	ASP	E	247	61.653	1.454	-7.564	1.00	36.26	C
ATOM	4693	C	ASP	E	247	62.022	2.415	-6.441	1.00	36.40	C
ATOM	4694	O	ASP	E	247	62.929	3.242	-6.597	1.00	36.83	O
ATOM	4695	CB	ASP	E	247	62.637	0.269	-7.619	1.00	37.20	C
ATOM	4696	CG	ASP	E	247	62.243	-0.872	-6.670	1.00	39.20	C
ATOM	4697	OD1	ASP	E	247	62.687	-2.025	-6.884	1.00	40.40	O
ATOM	4698	OD2	ASP	E	247	61.494	-0.621	-5.703	1.00	39.88	O
ATOM	4699	N	VAL	E	248	61.309	2.327	-5.322	1.00	36.45	N
ATOM	4700	CA	VAL	E	248	61.563	3.204	-4.194	1.00	36.17	C
ATOM	4701	C	VAL	E	248	61.964	2.413	-2.959	1.00	36.51	C
ATOM	4702	O	VAL	E	248	61.353	1.391	-2.637	1.00	37.11	O
ATOM	4703	CB	VAL	E	248	60.328	4.060	-3.891	1.00	36.50	C
ATOM	4704	CG1	VAL	E	248	60.629	5.054	-2.775	1.00	35.40	C
ATOM	4705	CG2	VAL	E	248	59.904	4.785	-5.156	1.00	36.50	C
ATOM	4706	N	VAL	E	249	63.000	2.897	-2.279	1.00	35.72	N
ATOM	4707	CA	VAL	E	249	63.534	2.253	-1.085	1.00	35.92	C
ATOM	4708	C	VAL	E	249	63.487	3.191	0.121	1.00	36.10	C
ATOM	4709	O	VAL	E	249	64.017	4.301	0.080	1.00	35.27	O
ATOM	4710	CB	VAL	E	249	65.019	1.824	-1.313	1.00	35.97	C
ATOM	4711	CG1	VAL	E	249	65.575	1.161	-0.060	1.00	35.72	C
ATOM	4712	CG2	VAL	E	249	65.118	0.890	-2.500	1.00	35.65	C
ATOM	4713	N	GLU	E	250	62.866	2.739	1.199	1.00	36.41	N
ATOM	4714	CA	GLU	E	250	62.776	3.555	2.402	1.00	37.64	C
ATOM	4715	C	GLU	E	250	64.031	3.372	3.246	1.00	36.43	C
ATOM	4716	O	GLU	E	250	64.413	2.252	3.553	1.00	36.31	O
ATOM	4717	CB	GLU	E	250	61.523	3.156	3.189	1.00	39.76	C
ATOM	4718	CG	GLU	E	250	60.238	3.451	2.429	1.00	43.74	C
ATOM	4719	CD	GLU	E	250	58.994	2.886	3.103	1.00	46.43	C
ATOM	4720	OE1	GLU	E	250	58.842	1.644	3.131	1.00	47.52	O
ATOM	4721	OE2	GLU	E	250	58.173	3.691	3.602	1.00	47.61	O
ATOM	4722	N	ARG	E	251	64.673	4.479	3.605	1.00	35.83	N
ATOM	4723	CA	ARG	E	251	65.887	4.452	4.410	1.00	34.82	C
ATOM	4724	C	ARG	E	251	65.534	4.841	5.837	1.00	35.98	C
ATOM	4725	O	ARG	E	251	64.655	5.659	6.048	1.00	36.11	O
ATOM	4726	CB	ARG	E	251	66.912	5.434	3.848	1.00	32.96	C
ATOM	4727	CG	ARG	E	251	67.309	5.148	2.405	1.00	30.43	C
ATOM	4728	CD	ARG	E	251	67.624	3.661	2.208	1.00	28.89	C
ATOM	4729	NE	ARG	E	251	68.650	3.166	3.125	1.00	25.79	N
ATOM	4730	CZ	ARG	E	251	69.962	3.342	2.973	1.00	24.83	C
ATOM	4731	NH1	ARG	E	251	70.448	4.011	1.934	1.00	24.17	N
ATOM	4732	NH2	ARG	E	251	70.798	2.812	3.854	1.00	25.42	N
ATOM	4733	N	SER	E	252	66.208	4.261	6.821	1.00	35.82	N
ATOM	4734	CA	SER	E	252	65.943	4.546	8.227	1.00	36.14	C
ATOM	4735	C	SER	E	252	67.213	5.007	8.944	1.00	36.13	C
ATOM	4736	O	SER	E	252	68.037	4.196	9.349	1.00	35.73	O
ATOM	4737	CB	SER	E	252	65.379	3.291	8.901	1.00	36.34	C
ATOM	4738	OG	SER	E	252	65.345	3.445	10.308	1.00	39.29	O
ATOM	4739	N	PRO	E	253	67.384	6.319	9.112	1.00	36.78	N
ATOM	4740	CA	PRO	E	253	68.579	6.842	9.782	1.00	37.06	C
ATOM	4741	C	PRO	E	253	68.593	6.740	11.310	1.00	37.49	C
ATOM	4742	O	PRO	E	253	68.899	7.715	11.992	1.00	38.41	O
ATOM	4743	CB	PRO	E	253	68.644	8.285	9.289	1.00	37.46	C
ATOM	4744	CG	PRO	E	253	67.196	8.649	9.163	1.00	37.04	C
ATOM	4745	CD	PRO	E	253	66.576	7.413	8.535	1.00	36.82	C
ATOM	4746	N	HIS	E	254	68.263	5.572	11.849	1.00	37.59	N
ATOM	4747	CA	HIS	E	254	68.281	5.390	13.299	1.00	37.95	C
ATOM	4748	C	HIS	E	254	69.383	4.430	13.742	1.00	36.67	C
ATOM	4749	O	HIS	E	254	69.880	3.632	12.956	1.00	35.85	O

Table 3

ATOM	4750	CB	HIS	E	254	66.943	4.851	13.814	1.00	40.15	C
ATOM	4751	CG	HIS	E	254	65.788	5.774	13.584	1.00	43.58	C
ATOM	4752	ND1	HIS	E	254	65.029	5.746	12.431	1.00	45.48	N
ATOM	4753	CD2	HIS	E	254	65.270	6.761	14.352	1.00	44.54	C
ATOM	4754	CE1	HIS	E	254	64.092	6.675	12.500	1.00	45.14	C
ATOM	4755	NE2	HIS	E	254	64.216	7.305	13.656	1.00	46.03	N
ATOM	4756	N	ARG	E	255	69.773	4.526	15.004	1.00	35.96	N
ATOM	4757	CA	ARG	E	255	70.767	3.615	15.534	1.00	35.50	C
ATOM	4758	C	ARG	E	255	70.008	2.282	15.656	1.00	34.66	C
ATOM	4759	O	ARG	E	255	68.777	2.262	15.560	1.00	34.53	O
ATOM	4760	CB	ARG	E	255	71.261	4.102	16.897	1.00	37.29	C
ATOM	4761	CG	ARG	E	255	70.222	4.051	17.999	1.00	39.20	C
ATOM	4762	CD	ARG	E	255	70.851	4.379	19.349	1.00	41.59	C
ATOM	4763	NE	ARG	E	255	69.966	4.025	20.454	1.00	44.03	N
ATOM	4764	CZ	ARG	E	255	68.825	4.649	20.734	1.00	45.95	C
ATOM	4765	NH1	ARG	E	255	68.425	5.675	19.992	1.00	47.53	N
ATOM	4766	NH2	ARG	E	255	68.070	4.236	21.745	1.00	46.53	N
ATOM	4767	N	PRO	E	256	70.716	1.162	15.855	1.00	33.03	N
ATOM	4768	CA	PRO	E	256	70.046	-0.141	15.974	1.00	32.21	C
ATOM	4769	C	PRO	E	256	68.968	-0.207	17.055	1.00	31.23	C
ATOM	4770	O	PRO	E	256	69.136	0.340	18.136	1.00	31.38	O
ATOM	4771	CB	PRO	E	256	71.198	-1.101	16.271	1.00	31.81	C
ATOM	4772	CG	PRO	E	256	72.384	-0.432	15.589	1.00	32.06	C
ATOM	4773	CD	PRO	E	256	72.177	1.016	15.984	1.00	33.61	C
ATOM	4774	N	ILE	E	257	67.865	-0.882	16.749	1.00	30.78	N
ATOM	4775	CA	ILE	E	257	66.775	-1.047	17.705	1.00	31.56	C
ATOM	4776	C	ILE	E	257	66.654	-2.528	18.123	1.00	31.18	C
ATOM	4777	O	ILE	E	257	66.677	-3.417	17.276	1.00	30.43	O
ATOM	4778	CB	ILE	E	257	65.449	-0.540	17.092	1.00	33.43	C
ATOM	4779	CG1	ILE	E	257	65.520	0.985	16.923	1.00	34.39	C
ATOM	4780	CG2	ILE	E	257	64.281	-0.937	17.967	1.00	33.57	C
ATOM	4781	CD1	ILE	E	257	64.240	1.624	16.450	1.00	36.23	C
ATOM	4782	N	LEU	E	258	66.566	-2.785	19.429	1.00	30.38	N
ATOM	4783	CA	LEU	E	258	66.448	-4.154	19.930	1.00	30.95	C
ATOM	4784	C	LEU	E	258	65.035	-4.436	20.434	1.00	31.23	C
ATOM	4785	O	LEU	E	258	64.336	-3.525	20.884	1.00	30.88	O
ATOM	4786	CB	LEU	E	258	67.429	-4.409	21.081	1.00	29.89	C
ATOM	4787	CG	LEU	E	258	68.918	-4.041	20.966	1.00	32.11	C
ATOM	4788	CD1	LEU	E	258	69.709	-4.974	21.852	1.00	29.79	C
ATOM	4789	CD2	LEU	E	258	69.422	-4.144	19.535	1.00	31.84	C
ATOM	4790	N	GLN	E	259	64.625	-5.696	20.367	1.00	31.39	N
ATOM	4791	CA	GLN	E	259	63.303	-6.084	20.839	1.00	32.44	C
ATOM	4792	C	GLN	E	259	63.272	-6.063	22.372	1.00	32.23	C
ATOM	4793	O	GLN	E	259	64.172	-6.598	23.035	1.00	31.48	O
ATOM	4794	CB	GLN	E	259	62.947	-7.485	20.339	1.00	33.89	C
ATOM	4795	CG	GLN	E	259	61.577	-7.972	20.778	1.00	36.67	C
ATOM	4796	CD	GLN	E	259	61.402	-9.462	20.547	1.00	38.34	C
ATOM	4797	OE1	GLN	E	259	61.645	-9.961	19.451	1.00	39.45	O
ATOM	4798	NE2	GLN	E	259	60.980	-10.178	21.580	1.00	39.08	N
ATOM	4799	N	ALA	E	260	62.238	-5.443	22.931	1.00	31.78	N
ATOM	4800	CA	ALA	E	260	62.103	-5.366	24.386	1.00	32.73	C
ATOM	4801	C	ALA	E	260	61.931	-6.757	24.992	1.00	32.75	C
ATOM	4802	O	ALA	E	260	61.249	-7.600	24.427	1.00	33.21	O
ATOM	4803	CB	ALA	E	260	60.905	-4.475	24.765	1.00	32.81	C
ATOM	4804	N	GLY	E	261	62.565	-6.991	26.137	1.00	32.60	N
ATOM	4805	CA	GLY	E	261	62.457	-8.282	26.792	1.00	33.01	C
ATOM	4806	C	GLY	E	261	63.577	-9.258	26.473	1.00	33.86	C
ATOM	4807	O	GLY	E	261	63.711	-10.282	27.139	1.00	33.46	O
ATOM	4808	N	LEU	E	262	64.380	-8.952	25.456	1.00	34.46	N
ATOM	4809	CA	LEU	E	262	65.478	-9.836	25.060	1.00	34.63	C
ATOM	4810	C	LEU	E	262	66.821	-9.128	25.125	1.00	35.41	C
ATOM	4811	O	LEU	E	262	66.963	-7.999	24.668	1.00	35.68	O
ATOM	4812	CB	LEU	E	262	65.253	-10.367	23.647	1.00	34.06	C
ATOM	4813	CG	LEU	E	262	64.042	-11.289	23.456	1.00	35.07	C
ATOM	4814	CD1	LEU	E	262	63.957	-11.728	21.988	1.00	32.19	C
ATOM	4815	CD2	LEU	E	262	64.177	-12.513	24.369	1.00	33.00	C

Table 3

ATOM	4816	N	PRO	E	263	67.835	-9.794	25.690	1.00	36.61	N
ATOM	4817	CA	PRO	E	263	67.751	-11.144	26.256	1.00	36.99	C
ATOM	4818	C	PRO	E	263	66.947	-11.202	27.552	1.00	37.76	C
ATOM	4819	O	PRO	E	263	66.684	-10.180	28.181	1.00	37.69	O
ATOM	4820	CB	PRO	E	263	69.216	-11.505	26.464	1.00	37.44	C
ATOM	4821	CG	PRO	E	263	69.809	-10.185	26.849	1.00	36.22	C
ATOM	4822	CD	PRO	E	263	69.197	-9.254	25.830	1.00	36.32	C
ATOM	4823	N	ALA	E	264	66.561	-12.406	27.949	1.00	39.07	N
ATOM	4824	CA	ALA	E	264	65.789	-12.588	29.173	1.00	40.24	C
ATOM	4825	C	ALA	E	264	66.647	-13.176	30.284	1.00	40.74	C
ATOM	4826	O	ALA	E	264	67.602	-13.911	30.024	1.00	40.98	O
ATOM	4827	CB	ALA	E	264	64.586	-13.497	28.905	1.00	40.12	C
ATOM	4828	N	ASN	E	265	66.308	-12.833	31.523	1.00	42.19	N
ATOM	4829	CA	ASN	E	265	67.027	-13.352	32.680	1.00	43.62	C
ATOM	4830	C	ASN	E	265	66.936	-14.880	32.650	1.00	44.58	C
ATOM	4831	O	ASN	E	265	65.966	-15.445	32.124	1.00	44.42	O
ATOM	4832	CB	ASN	E	265	66.399	-12.817	33.969	1.00	44.05	C
ATOM	4833	CG	ASN	E	265	67.055	-11.536	34.456	1.00	45.16	C
ATOM	4834	OD1	ASN	E	265	67.185	-10.557	33.718	1.00	44.14	O
ATOM	4835	ND2	ASN	E	265	67.471	-11.540	35.716	1.00	46.55	N
ATOM	4836	N	ALA	E	266	67.947	-15.545	33.198	1.00	45.09	N
ATOM	4837	CA	ALA	E	266	67.955	-17.004	33.230	1.00	46.13	C
ATOM	4838	C	ALA	E	266	68.539	-17.506	34.545	1.00	46.86	C
ATOM	4839	O	ALA	E	266	69.381	-16.842	35.162	1.00	46.71	O
ATOM	4840	CB	ALA	E	266	68.750	-17.556	32.046	1.00	45.45	C
ATOM	4841	N	SER	E	267	68.077	-18.679	34.971	1.00	47.77	N
ATOM	4842	CA	SER	E	267	68.538	-19.290	36.212	1.00	48.84	C
ATOM	4843	C	SER	E	267	68.774	-20.781	35.989	1.00	49.84	C
ATOM	4844	O	SER	E	267	68.054	-21.425	35.214	1.00	50.77	O
ATOM	4845	CB	SER	E	267	67.502	-19.090	37.323	1.00	48.70	C
ATOM	4846	N	ASP	E	273	72.922	-25.916	31.411	1.00	52.50	N
ATOM	4847	CA	ASP	E	273	73.121	-25.160	30.177	1.00	52.79	C
ATOM	4848	C	ASP	E	273	72.109	-24.024	30.024	1.00	52.36	C
ATOM	4849	O	ASP	E	273	70.968	-24.115	30.493	1.00	52.76	O
ATOM	4850	CB	ASP	E	273	73.069	-26.097	28.964	1.00	53.36	C
ATOM	4851	CG	ASP	E	273	74.391	-26.816	28.729	1.00	53.74	C
ATOM	4852	OD1	ASP	E	273	75.031	-27.208	29.723	1.00	54.01	O
ATOM	4853	OD2	ASP	E	273	74.786	-26.998	27.557	1.00	53.01	O
ATOM	4854	N	VAL	E	274	72.535	-22.949	29.367	1.00	51.31	N
ATOM	4855	CA	VAL	E	274	71.671	-21.785	29.182	1.00	50.20	C
ATOM	4856	C	VAL	E	274	71.954	-21.011	27.891	1.00	49.58	C
ATOM	4857	O	VAL	E	274	72.997	-21.178	27.255	1.00	49.28	O
ATOM	4858	CB	VAL	E	274	71.830	-20.800	30.366	1.00	49.84	C
ATOM	4859	CG1	VAL	E	274	73.191	-20.125	30.298	1.00	49.41	C
ATOM	4860	CG2	VAL	E	274	70.720	-19.770	30.349	1.00	50.22	C
ATOM	4861	N	GLU	E	275	71.010	-20.159	27.509	1.00	48.78	N
ATOM	4862	CA	GLU	E	275	71.183	-19.335	26.329	1.00	47.91	C
ATOM	4863	C	GLU	E	275	70.564	-17.960	26.526	1.00	46.62	C
ATOM	4864	O	GLU	E	275	69.689	-17.765	27.368	1.00	46.91	O
ATOM	4865	CB	GLU	E	275	70.570	-19.993	25.099	1.00	48.23	C
ATOM	4866	CG	GLU	E	275	69.073	-20.101	25.150	1.00	49.42	C
ATOM	4867	CD	GLU	E	275	68.487	-20.457	23.802	1.00	50.68	C
ATOM	4868	OE1	GLU	E	275	69.158	-21.191	23.039	1.00	51.67	O
ATOM	4869	OE2	GLU	E	275	67.356	-20.011	23.510	1.00	51.40	O
ATOM	4870	N	PHE	E	276	71.051	-17.005	25.746	1.00	44.96	N
ATOM	4871	CA	PHE	E	276	70.557	-15.642	25.781	1.00	43.18	C
ATOM	4872	C	PHE	E	276	70.298	-15.259	24.342	1.00	42.01	C
ATOM	4873	O	PHE	E	276	71.174	-15.394	23.488	1.00	41.08	O
ATOM	4874	CB	PHE	E	276	71.595	-14.715	26.398	1.00	44.88	C
ATOM	4875	CG	PHE	E	276	71.764	-14.901	27.878	1.00	46.37	C
ATOM	4876	CD1	PHE	E	276	70.721	-14.605	28.749	1.00	46.80	C
ATOM	4877	CD2	PHE	E	276	72.977	-15.350	28.402	1.00	46.66	C
ATOM	4878	CE1	PHE	E	276	70.883	-14.749	30.129	1.00	48.86	C
ATOM	4879	CE2	PHE	E	276	73.154	-15.499	29.775	1.00	48.80	C
ATOM	4880	CZ	PHE	E	276	72.104	-15.198	30.648	1.00	48.50	C
ATOM	4881	N	VAL	E	277	69.084	-14.799	24.072	1.00	40.85	N

ATOM	4882	CA	VAL	E	277	68.710	-14.420	22.722	1.00	40.07	C
ATOM	4883	C	VAL	E	277	68.559	-12.922	22.573	1.00	39.63	C
ATOM	4884	O	VAL	E	277	68.187	-12.216	23.512	1.00	40.44	O
ATOM	4885	CB	VAL	E	277	67.393	-15.087	22.303	1.00	39.97	C
ATOM	4886	CG1	VAL	E	277	67.072	-14.742	20.862	1.00	39.49	C
ATOM	4887	CG2	VAL	E	277	67.503	-16.591	22.484	1.00	40.06	C
ATOM	4888	N	CYS	E	278	68.850	-12.438	21.376	1.00	38.95	N
ATOM	4889	CA	CYS	E	278	68.744	-11.023	21.092	1.00	38.48	C
ATOM	4890	C	CYS	E	278	68.168	-10.848	19.694	1.00	37.35	C
ATOM	4891	O	CYS	E	278	68.469	-11.642	18.809	1.00	37.61	O
ATOM	4892	CB	CYS	E	278	70.122	-10.375	21.170	1.00	39.85	C
ATOM	4893	SG	CYS	E	278	70.048	-8.589	21.045	1.00	44.17	S
ATOM	4894	N	LYS	E	279	67.334	-9.825	19.506	1.00	35.62	N
ATOM	4895	CA	LYS	E	279	66.729	-9.538	18.198	1.00	34.29	C
ATOM	4896	C	LYS	E	279	66.988	-8.093	17.770	1.00	33.03	C
ATOM	4897	O	LYS	E	279	66.437	-7.149	18.356	1.00	31.92	O
ATOM	4898	CB	LYS	E	279	65.214	-9.788	18.220	1.00	34.84	C
ATOM	4899	CG	LYS	E	279	64.798	-11.190	17.806	1.00	37.35	C
ATOM	4900	CD	LYS	E	279	65.191	-11.495	16.349	1.00	37.45	C
ATOM	4901	CE	LYS	E	279	64.485	-10.561	15.370	1.00	38.22	C
ATOM	4902	NZ	LYS	E	279	64.821	-10.836	13.944	1.00	36.90	N
ATOM	4903	N	VAL	E	280	67.799	-7.933	16.727	1.00	31.70	N
ATOM	4904	CA	VAL	E	280	68.179	-6.614	16.223	1.00	30.63	C
ATOM	4905	C	VAL	E	280	67.595	-6.185	14.877	1.00	30.67	C
ATOM	4906	O	VAL	E	280	67.388	-7.000	13.972	1.00	30.96	O
ATOM	4907	CB	VAL	E	280	69.721	-6.510	16.128	1.00	31.01	C
ATOM	4908	CG1	VAL	E	280	70.128	-5.143	15.601	1.00	30.63	C
ATOM	4909	CG2	VAL	E	280	70.344	-6.785	17.501	1.00	30.60	C
ATOM	4910	N	TYR	E	281	67.340	-4.883	14.758	1.00	30.41	N
ATOM	4911	CA	TYR	E	281	66.812	-4.277	13.534	1.00	30.43	C
ATOM	4912	C	TYR	E	281	67.654	-3.033	13.214	1.00	29.51	C
ATOM	4913	O	TYR	E	281	67.939	-2.232	14.101	1.00	30.49	O
ATOM	4914	CB	TYR	E	281	65.341	-3.885	13.726	1.00	30.72	C
ATOM	4915	N	SER	E	282	68.059	-2.881	11.959	1.00	28.51	N
ATOM	4916	CA	SER	E	282	68.873	-1.743	11.541	1.00	28.49	C
ATOM	4917	C	SER	E	282	68.981	-1.649	10.016	1.00	28.34	C
ATOM	4918	O	SER	E	282	68.990	-2.670	9.335	1.00	28.39	O
ATOM	4919	CB	SER	E	282	70.276	-1.872	12.144	1.00	28.98	C
ATOM	4920	OG	SER	E	282	71.129	-0.841	11.680	1.00	27.93	O
ATOM	4921	N	ASP	E	283	69.053	-0.425	9.489	1.00	28.16	N
ATOM	4922	CA	ASP	E	283	69.186	-0.203	8.043	1.00	27.48	C
ATOM	4923	C	ASP	E	283	70.686	-0.255	7.763	1.00	27.69	C
ATOM	4924	O	ASP	E	283	71.153	-1.114	7.020	1.00	27.69	O
ATOM	4925	CB	ASP	E	283	68.635	1.173	7.652	1.00	27.30	C
ATOM	4926	CG	ASP	E	283	68.615	1.398	6.138	1.00	26.87	C
ATOM	4927	OD1	ASP	E	283	69.363	0.720	5.396	1.00	26.10	O
ATOM	4928	OD2	ASP	E	283	67.847	2.276	5.689	1.00	26.11	O
ATOM	4929	N	ALA	E	284	71.432	0.671	8.363	1.00	26.91	N
ATOM	4930	CA	ALA	E	284	72.885	0.684	8.230	1.00	27.55	C
ATOM	4931	C	ALA	E	284	73.342	-0.636	8.860	1.00	27.06	C
ATOM	4932	O	ALA	E	284	72.814	-1.034	9.903	1.00	26.87	O
ATOM	4933	CB	ALA	E	284	73.485	1.859	9.011	1.00	26.70	C
ATOM	4934	N	GLN	E	285	74.303	-1.320	8.241	1.00	26.18	N
ATOM	4935	CA	GLN	E	285	74.783	-2.598	8.807	1.00	26.17	C
ATOM	4936	C	GLN	E	285	75.162	-2.456	10.277	1.00	25.13	C
ATOM	4937	O	GLN	E	285	75.998	-1.627	10.636	1.00	25.37	O
ATOM	4938	CB	GLN	E	285	76.004	-3.168	8.062	1.00	26.14	C
ATOM	4939	CG	GLN	E	285	75.734	-3.808	6.714	1.00	27.73	C
ATOM	4940	CD	GLN	E	285	74.706	-4.913	6.765	1.00	27.55	C
ATOM	4941	OE1	GLN	E	285	73.663	-4.815	6.136	1.00	29.93	O
ATOM	4942	NE2	GLN	E	285	74.992	-5.973	7.516	1.00	29.65	N
ATOM	4943	N	PRO	E	286	74.543	-3.274	11.141	1.00	24.69	N
ATOM	4944	CA	PRO	E	286	74.825	-3.245	12.580	1.00	25.25	C
ATOM	4945	C	PRO	E	286	75.918	-4.237	12.992	1.00	25.84	C
ATOM	4946	O	PRO	E	286	76.096	-5.270	12.359	1.00	27.46	O
ATOM	4947	CB	PRO	E	286	73.467	-3.605	13.181	1.00	24.49	C

ATOM	4948	CG	PRO	E	286	72.960	-4.655	12.225	1.00	23.95	C
ATOM	4949	CD	PRO	E	286	73.349	-4.085	10.851	1.00	24.51	C
ATOM	4950	N	HIS	E	287	76.654	-3.911	14.052	1.00	26.68	N
ATOM	4951	CA	HIS	E	287	77.702	-4.786	14.571	1.00	27.28	C
ATOM	4952	C	HIS	E	287	77.250	-5.261	15.950	1.00	27.80	C
ATOM	4953	O	HIS	E	287	77.062	-4.458	16.868	1.00	27.59	O
ATOM	4954	CB	HIS	E	287	79.044	-4.055	14.680	1.00	27.34	C
ATOM	4955	CG	HIS	E	287	80.167	-4.937	15.139	1.00	28.97	C
ATOM	4956	ND1	HIS	E	287	80.689	-4.880	16.416	1.00	29.15	N
ATOM	4957	CD2	HIS	E	287	80.832	-5.935	14.506	1.00	28.29	C
ATOM	4958	CE1	HIS	E	287	81.625	-5.803	16.551	1.00	29.45	C
ATOM	4959	NE2	HIS	E	287	81.731	-6.459	15.406	1.00	29.06	N
ATOM	4960	N	ILE	E	288	77.061	-6.570	16.081	1.00	28.01	N
ATOM	4961	CA	ILE	E	288	76.584	-7.159	17.323	1.00	29.20	C
ATOM	4962	C	ILE	E	288	77.650	-7.931	18.104	1.00	30.30	C
ATOM	4963	O	ILE	E	288	78.469	-8.645	17.521	1.00	31.71	O
ATOM	4964	CB	ILE	E	288	75.385	-8.087	17.018	1.00	27.76	C
ATOM	4965	CG1	ILE	E	288	74.285	-7.278	16.316	1.00	28.76	C
ATOM	4966	CG2	ILE	E	288	74.850	-8.717	18.290	1.00	27.88	C
ATOM	4967	CD1	ILE	E	288	73.227	-8.141	15.623	1.00	25.74	C
ATOM	4968	N	GLN	E	289	77.641	-7.771	19.426	1.00	31.39	N
ATOM	4969	CA	GLN	E	289	78.580	-8.475	20.292	1.00	33.14	C
ATOM	4970	C	GLN	E	289	77.924	-8.769	21.633	1.00	33.52	C
ATOM	4971	O	GLN	E	289	76.961	-8.102	22.018	1.00	34.50	O
ATOM	4972	CB	GLN	E	289	79.861	-7.650	20.495	1.00	34.53	C
ATOM	4973	CG	GLN	E	289	79.655	-6.240	21.025	1.00	35.38	C
ATOM	4974	CD	GLN	E	289	80.970	-5.538	21.279	1.00	37.44	C
ATOM	4975	OE1	GLN	E	289	81.851	-6.087	21.938	1.00	39.19	O
ATOM	4976	NE2	GLN	E	289	81.113	-4.319	20.765	1.00	37.44	N
ATOM	4977	N	TRP	E	290	78.425	-9.789	22.323	1.00	33.78	N
ATOM	4978	CA	TRP	E	290	77.902	-10.171	23.628	1.00	34.30	C
ATOM	4979	C	TRP	E	290	78.965	-9.867	24.670	1.00	35.91	C
ATOM	4980	O	TRP	E	290	80.131	-10.253	24.515	1.00	36.39	O
ATOM	4981	CB	TRP	E	290	77.537	-11.663	23.669	1.00	32.84	C
ATOM	4982	CG	TRP	E	290	76.254	-12.011	22.953	1.00	31.62	C
ATOM	4983	CD1	TRP	E	290	76.120	-12.430	21.659	1.00	32.53	C
ATOM	4984	CD2	TRP	E	290	74.931	-11.985	23.503	1.00	30.60	C
ATOM	4985	NE1	TRP	E	290	74.796	-12.673	21.369	1.00	30.76	N
ATOM	4986	CE2	TRP	E	290	74.045	-12.406	22.484	1.00	31.02	C
ATOM	4987	CE3	TRP	E	290	74.406	-11.644	24.757	1.00	30.73	C
ATOM	4988	CZ2	TRP	E	290	72.661	-12.497	22.680	1.00	30.30	C
ATOM	4989	CZ3	TRP	E	290	73.029	-11.736	24.955	1.00	30.32	C
ATOM	4990	CH2	TRP	E	290	72.173	-12.159	23.918	1.00	31.09	C
ATOM	4991	N	ILE	E	291	78.561	-9.176	25.731	1.00	37.47	N
ATOM	4992	CA	ILE	E	291	79.487	-8.787	26.785	1.00	39.92	C
ATOM	4993	C	ILE	E	291	79.075	-9.239	28.185	1.00	41.83	C
ATOM	4994	O	ILE	E	291	77.892	-9.260	28.529	1.00	41.92	O
ATOM	4995	CB	ILE	E	291	79.658	-7.263	26.808	1.00	39.84	C
ATOM	4996	CG1	ILE	E	291	80.151	-6.777	25.442	1.00	39.98	C
ATOM	4997	CG2	ILE	E	291	80.619	-6.867	27.912	1.00	39.95	C
ATOM	4998	CD1	ILE	E	291	80.132	-5.274	25.295	1.00	40.10	C
ATOM	4999	N	LYS	E	292	80.073	-9.601	28.988	1.00	43.20	N
ATOM	5000	CA	LYS	E	292	79.856	-10.022	30.366	1.00	44.66	C
ATOM	5001	C	LYS	E	292	80.471	-8.948	31.251	1.00	45.75	C
ATOM	5002	O	LYS	E	292	81.609	-8.523	31.028	1.00	45.37	O
ATOM	5003	CB	LYS	E	292	80.536	-11.362	30.649	1.00	44.86	C
ATOM	5004	N	HIS	E	293	79.714	-8.506	32.250	1.00	47.10	N
ATOM	5005	CA	HIS	E	293	80.183	-7.476	33.167	1.00	48.94	C
ATOM	5006	C	HIS	E	293	81.057	-8.107	34.242	1.00	50.05	C
ATOM	5007	O	HIS	E	293	80.555	-8.806	35.125	1.00	50.26	O
ATOM	5008	CB	HIS	E	293	78.988	-6.768	33.816	1.00	48.54	C
ATOM	5009	N	VAL	E	294	82.363	-7.861	34.155	1.00	51.57	N
ATOM	5010	CA	VAL	E	294	83.319	-8.401	35.115	1.00	53.36	C
ATOM	5011	C	VAL	E	294	83.961	-7.281	35.930	1.00	54.68	C
ATOM	5012	O	VAL	E	294	84.546	-7.524	36.986	1.00	56.28	O
ATOM	5013	CB	VAL	E	294	84.436	-9.201	34.407	1.00	53.01	C

ATOM	5014	N	PRO	E	307	83.804	0.595	34.001	1.00	60.83	N
ATOM	5015	CA	PRO	E	307	83.190	-0.739	34.037	1.00	60.46	C
ATOM	5016	C	PRO	E	307	84.063	-1.813	33.386	1.00	59.98	C
ATOM	5017	O	PRO	E	307	84.386	-1.725	32.199	1.00	60.20	O
ATOM	5018	CB	PRO	E	307	81.880	-0.530	33.280	1.00	60.75	C
ATOM	5019	CG	PRO	E	307	82.275	0.476	32.231	1.00	60.65	C
ATOM	5020	CD	PRO	E	307	83.107	1.468	33.037	1.00	61.05	C
ATOM	5021	N	TYR	E	308	84.441	-2.822	34.166	1.00	58.80	N
ATOM	5022	CA	TYR	E	308	85.266	-3.917	33.655	1.00	57.71	C
ATOM	5023	C	TYR	E	308	84.411	-4.844	32.796	1.00	56.51	C
ATOM	5024	O	TYR	E	308	83.524	-5.533	33.301	1.00	57.08	O
ATOM	5025	CB	TYR	E	308	85.887	-4.707	34.815	1.00	57.74	C
ATOM	5026	N	LEU	E	309	84.689	-4.865	31.497	1.00	55.13	N
ATOM	5027	CA	LEU	E	309	83.926	-5.690	30.570	1.00	53.60	C
ATOM	5028	C	LEU	E	309	84.771	-6.784	29.916	1.00	52.13	C
ATOM	5029	O	LEU	E	309	85.991	-6.664	29.813	1.00	52.33	O
ATOM	5030	CB	LEU	E	309	83.313	-4.788	29.496	1.00	53.76	C
ATOM	5031	CG	LEU	E	309	82.632	-3.528	30.042	1.00	54.69	C
ATOM	5032	CD1	LEU	E	309	82.231	-2.615	28.886	1.00	55.37	C
ATOM	5033	CD2	LEU	E	309	81.426	-3.910	30.889	1.00	54.17	C
ATOM	5034	N	LYS	E	310	84.111	-7.852	29.483	1.00	49.92	N
ATOM	5035	CA	LYS	E	310	84.784	-8.963	28.812	1.00	47.92	C
ATOM	5036	C	LYS	E	310	83.957	-9.383	27.596	1.00	46.18	C
ATOM	5037	O	LYS	E	310	82.791	-9.760	27.733	1.00	45.41	O
ATOM	5038	CB	LYS	E	310	84.934	-10.151	29.766	1.00	47.80	C
ATOM	5039	N	VAL	E	311	84.561	-9.321	26.412	1.00	44.53	N
ATOM	5040	CA	VAL	E	311	83.864	-9.690	25.178	1.00	42.94	C
ATOM	5041	C	VAL	E	311	83.812	-11.197	24.979	1.00	42.70	C
ATOM	5042	O	VAL	E	311	84.837	-11.841	24.753	1.00	43.13	O
ATOM	5043	CB	VAL	E	311	84.539	-9.071	23.934	1.00	42.45	C
ATOM	5044	CG1	VAL	E	311	83.833	-9.550	22.661	1.00	40.98	C
ATOM	5045	CG2	VAL	E	311	84.511	-7.557	24.029	1.00	41.52	C
ATOM	5046	N	LEU	E	312	82.609	-11.753	25.041	1.00	41.79	N
ATOM	5047	CA	LEU	E	312	82.418	-13.188	24.869	1.00	40.92	C
ATOM	5048	C	LEU	E	312	82.405	-13.596	23.405	1.00	40.03	C
ATOM	5049	O	LEU	E	312	82.932	-14.643	23.040	1.00	40.10	O
ATOM	5050	CB	LEU	E	312	81.102	-13.625	25.519	1.00	42.05	C
ATOM	5051	CG	LEU	E	312	80.890	-13.141	26.956	1.00	43.75	C
ATOM	5052	CD1	LEU	E	312	79.784	-13.962	27.606	1.00	42.68	C
ATOM	5053	CD2	LEU	E	312	82.187	-13.289	27.748	1.00	44.25	C
ATOM	5054	N	LYS	E	313	81.771	-12.785	22.569	1.00	38.60	N
ATOM	5055	CA	LYS	E	313	81.715	-13.069	21.146	1.00	37.54	C
ATOM	5056	C	LYS	E	313	81.341	-11.805	20.395	1.00	36.63	C
ATOM	5057	O	LYS	E	313	80.612	-10.952	20.910	1.00	36.09	O
ATOM	5058	CB	LYS	E	313	80.741	-14.216	20.832	1.00	38.37	C
ATOM	5059	CG	LYS	E	313	79.283	-13.881	20.927	1.00	40.25	C
ATOM	5060	CD	LYS	E	313	78.434	-15.110	20.642	1.00	41.30	C
ATOM	5061	CE	LYS	E	313	78.667	-15.657	19.245	1.00	42.13	C
ATOM	5062	NZ	LYS	E	313	77.712	-16.764	18.931	1.00	43.04	N
ATOM	5063	N	ALA	E	314	81.871	-11.679	19.181	1.00	34.76	N
ATOM	5064	CA	ALA	E	314	81.633	-10.501	18.362	1.00	33.57	C
ATOM	5065	C	ALA	E	314	81.531	-10.845	16.883	1.00	33.42	C
ATOM	5066	O	ALA	E	314	82.287	-11.684	16.371	1.00	33.25	O
ATOM	5067	CB	ALA	E	314	82.744	-9.494	18.588	1.00	33.65	C
ATOM	5068	N	ALA	E	315	80.595	-10.185	16.201	1.00	32.14	N
ATOM	5069	CA	ALA	E	315	80.353	-10.398	14.780	1.00	31.01	C
ATOM	5070	C	ALA	E	315	81.549	-10.035	13.903	1.00	30.72	C
ATOM	5071	O	ALA	E	315	82.361	-9.177	14.257	1.00	30.48	O
ATOM	5072	CB	ALA	E	315	79.121	-9.607	14.335	1.00	30.66	C
ATOM	5073	N	GLY	E	316	81.631	-10.694	12.751	1.00	30.24	N
ATOM	5074	CA	GLY	E	316	82.708	-10.456	11.816	1.00	31.94	C
ATOM	5075	C	GLY	E	316	82.770	-11.540	10.755	1.00	33.59	C
ATOM	5076	O	GLY	E	316	81.899	-12.405	10.683	1.00	32.55	O
ATOM	5077	N	VAL	E	317	83.802	-11.479	9.925	1.00	35.48	N
ATOM	5078	CA	VAL	E	317	84.013	-12.449	8.860	1.00	38.38	C
ATOM	5079	C	VAL	E	317	84.061	-13.890	9.384	1.00	39.34	C

Table 3

ATOM	5080	O	VAL	E	317	83.570	-14.810	8.732	1.00	39.08	O
ATOM	5081	CB	VAL	E	317	85.339	-12.140	8.121	1.00	39.18	C
ATOM	5082	CG1	VAL	E	317	85.814	-13.363	7.350	1.00	41.23	C
ATOM	5083	CG2	VAL	E	317	85.133	-10.970	7.157	1.00	39.65	C
ATOM	5084	N	ASN	E	318	84.649	-14.073	10.563	1.00	41.02	N
ATOM	5085	CA	ASN	E	318	84.772	-15.397	11.165	1.00	42.81	C
ATOM	5086	C	ASN	E	318	83.640	-15.765	12.112	1.00	43.44	C
ATOM	5087	O	ASN	E	318	83.595	-16.879	12.635	1.00	43.81	O
ATOM	5088	CB	ASN	E	318	86.113	-15.511	11.885	1.00	43.79	C
ATOM	5089	CG	ASN	E	318	87.251	-15.783	10.928	1.00	44.65	C
ATOM	5090	OD1	ASN	E	318	88.377	-15.342	11.140	1.00	46.43	O
ATOM	5091	ND2	ASN	E	318	86.961	-16.526	9.863	1.00	45.45	N
ATOM	5092	N	THR	E	319	82.728	-14.825	12.336	1.00	43.23	N
ATOM	5093	CA	THR	E	319	81.585	-15.058	13.207	1.00	42.64	C
ATOM	5094	C	THR	E	319	80.401	-14.304	12.607	1.00	42.30	C
ATOM	5095	O	THR	E	319	80.025	-13.224	13.070	1.00	41.73	O
ATOM	5096	CB	THR	E	319	81.845	-14.542	14.629	1.00	42.95	C
ATOM	5097	OG1	THR	E	319	83.161	-14.923	15.053	1.00	43.57	O
ATOM	5098	CG2	THR	E	319	80.829	-15.132	15.583	1.00	42.54	C
ATOM	5099	N	THR	E	320	79.841	-14.898	11.561	1.00	41.32	N
ATOM	5100	CA	THR	E	320	78.713	-14.381	10.791	1.00	41.14	C
ATOM	5101	C	THR	E	320	77.460	-13.982	11.580	1.00	40.79	C
ATOM	5102	O	THR	E	320	77.228	-14.481	12.679	1.00	40.11	O
ATOM	5103	CB	THR	E	320	78.327	-15.445	9.717	1.00	40.88	C
ATOM	5104	OG1	THR	E	320	79.269	-15.385	8.642	1.00	41.69	O
ATOM	5105	CG2	THR	E	320	76.926	-15.235	9.186	1.00	41.14	C
ATOM	5106	N	ASP	E	321	76.652	-13.091	10.995	1.00	40.17	N
ATOM	5107	CA	ASP	E	321	75.402	-12.634	11.608	1.00	40.26	C
ATOM	5108	C	ASP	E	321	74.370	-13.760	11.740	1.00	40.48	C
ATOM	5109	O	ASP	E	321	73.453	-13.671	12.551	1.00	40.99	O
ATOM	5110	CB	ASP	E	321	74.761	-11.492	10.785	1.00	40.57	C
ATOM	5111	CG	ASP	E	321	75.508	-10.164	10.911	1.00	40.77	C
ATOM	5112	OD1	ASP	E	321	76.166	-9.942	11.943	1.00	41.36	O
ATOM	5113	OD2	ASP	E	321	75.421	-9.334	9.980	1.00	40.77	O
ATOM	5114	N	LYS	E	322	74.513	-14.812	10.941	1.00	40.71	N
ATOM	5115	CA	LYS	E	322	73.561	-15.922	10.970	1.00	40.47	C
ATOM	5116	C	LYS	E	322	73.340	-16.497	12.366	1.00	40.34	C
ATOM	5117	O	LYS	E	322	72.213	-16.817	12.739	1.00	40.39	O
ATOM	5118	CB	LYS	E	322	74.014	-17.038	10.024	1.00	40.54	C
ATOM	5119	N	GLU	E	323	74.410	-16.605	13.146	1.00	39.99	N
ATOM	5120	CA	GLU	E	323	74.304	-17.172	14.486	1.00	40.42	C
ATOM	5121	C	GLU	E	323	74.793	-16.255	15.616	1.00	40.12	C
ATOM	5122	O	GLU	E	323	74.975	-16.705	16.752	1.00	40.19	O
ATOM	5123	CB	GLU	E	323	75.079	-18.497	14.539	1.00	41.39	C
ATOM	5124	N	ILE	E	324	74.980	-14.974	15.315	1.00	39.32	N
ATOM	5125	CA	ILE	E	324	75.472	-14.016	16.304	1.00	38.63	C
ATOM	5126	C	ILE	E	324	74.426	-13.586	17.349	1.00	37.71	C
ATOM	5127	O	ILE	E	324	74.780	-13.190	18.455	1.00	36.93	O
ATOM	5128	CB	ILE	E	324	76.038	-12.750	15.577	1.00	39.58	C
ATOM	5129	CG1	ILE	E	324	77.275	-12.216	16.305	1.00	40.68	C
ATOM	5130	CG2	ILE	E	324	74.959	-11.683	15.445	1.00	38.88	C
ATOM	5131	CD1	ILE	E	324	77.023	-11.669	17.672	1.00	42.53	C
ATOM	5132	N	GLU	E	325	73.144	-13.681	17.010	1.00	37.22	N
ATOM	5133	CA	GLU	E	325	72.085	-13.264	17.932	1.00	38.65	C
ATOM	5134	C	GLU	E	325	71.729	-14.213	19.085	1.00	39.26	C
ATOM	5135	O	GLU	E	325	70.838	-13.921	19.883	1.00	38.60	O
ATOM	5136	CB	GLU	E	325	70.816	-12.907	17.138	1.00	38.87	C
ATOM	5137	CG	GLU	E	325	70.909	-11.561	16.393	1.00	40.03	C
ATOM	5138	CD	GLU	E	325	69.746	-11.319	15.432	1.00	41.78	C
ATOM	5139	OE1	GLU	E	325	69.663	-12.037	14.413	1.00	42.23	O
ATOM	5140	OE2	GLU	E	325	68.913	-10.415	15.693	1.00	42.02	O
ATOM	5141	N	VAL	E	326	72.414	-15.347	19.182	1.00	40.15	N
ATOM	5142	CA	VAL	E	326	72.149	-16.281	20.270	1.00	41.03	C
ATOM	5143	C	VAL	E	326	73.467	-16.648	20.937	1.00	41.51	C
ATOM	5144	O	VAL	E	326	74.438	-16.974	20.264	1.00	41.62	O
ATOM	5145	CB	VAL	E	326	71.456	-17.559	19.763	1.00	41.93	C

Table 3

ATOM	5146	CG1	VAL	E	326	71.125	-18.469	20.942	1.00	42.60	C
ATOM	5147	CG2	VAL	E	326	70.193	-17.195	19.007	1.00	41.45	C
ATOM	5148	N	LEU	E	327	73.502	-16.565	22.261	1.00	42.31	N
ATOM	5149	CA	LEU	E	327	74.705	-16.881	23.024	1.00	43.48	C
ATOM	5150	C	LEU	E	327	74.463	-18.120	23.880	1.00	44.60	C
ATOM	5151	O	LEU	E	327	73.572	-18.122	24.732	1.00	44.30	O
ATOM	5152	CB	LEU	E	327	75.064	-15.709	23.936	1.00	43.12	C
ATOM	5153	CG	LEU	E	327	76.273	-15.926	24.848	1.00	43.38	C
ATOM	5154	CD1	LEU	E	327	77.547	-15.913	24.007	1.00	43.75	C
ATOM	5155	CD2	LEU	E	327	76.331	-14.839	25.913	1.00	42.65	C
ATOM	5156	N	TYR	E	328	75.264	-19.161	23.662	1.00	45.83	N
ATOM	5157	CA	TYR	E	328	75.130	-20.409	24.409	1.00	47.51	C
ATOM	5158	C	TYR	E	328	76.203	-20.539	25.480	1.00	48.60	C
ATOM	5159	O	TYR	E	328	77.367	-20.219	25.239	1.00	49.02	O
ATOM	5160	CB	TYR	E	328	75.230	-21.604	23.465	1.00	48.05	C
ATOM	5161	CG	TYR	E	328	74.175	-21.633	22.389	1.00	49.56	C
ATOM	5162	CD1	TYR	E	328	74.428	-21.111	21.118	1.00	50.39	C
ATOM	5163	CD2	TYR	E	328	72.916	-22.174	22.641	1.00	50.10	C
ATOM	5164	CE1	TYR	E	328	73.451	-21.132	20.121	1.00	50.75	C
ATOM	5165	CE2	TYR	E	328	71.930	-22.199	21.654	1.00	50.95	C
ATOM	5166	CZ	TYR	E	328	72.205	-21.679	20.397	1.00	51.33	C
ATOM	5167	OH	TYR	E	328	71.234	-21.720	19.416	1.00	52.19	O
ATOM	5168	N	ILE	E	329	75.808	-21.025	26.653	1.00	50.10	N
ATOM	5169	CA	ILE	E	329	76.719	-21.217	27.784	1.00	51.70	C
ATOM	5170	C	ILE	E	329	76.424	-22.593	28.398	1.00	53.13	C
ATOM	5171	O	ILE	E	329	75.392	-22.759	29.053	1.00	53.28	O
ATOM	5172	CB	ILE	E	329	76.466	-20.124	28.857	1.00	51.99	C
ATOM	5173	CG1	ILE	E	329	76.483	-18.739	28.201	1.00	52.28	C
ATOM	5174	CG2	ILE	E	329	77.518	-20.203	29.953	1.00	52.51	C
ATOM	5175	CD1	ILE	E	329	76.166	-17.593	29.145	1.00	52.93	C
ATOM	5176	N	ARG	E	330	77.320	-23.566	28.198	1.00	54.31	N
ATOM	5177	CA	ARG	E	330	77.128	-24.929	28.713	1.00	54.98	C
ATOM	5178	C	ARG	E	330	77.949	-25.259	29.959	1.00	55.26	C
ATOM	5179	O	ARG	E	330	79.005	-24.666	30.184	1.00	55.44	O
ATOM	5180	CB	ARG	E	330	77.465	-25.940	27.612	1.00	54.90	C
ATOM	5181	N	ASN	E	331	77.461	-26.212	30.755	1.00	55.70	N
ATOM	5182	CA	ASN	E	331	78.154	-26.636	31.970	1.00	56.20	C
ATOM	5183	C	ASN	E	331	78.593	-25.414	32.768	1.00	56.64	C
ATOM	5184	O	ASN	E	331	79.781	-25.231	33.039	1.00	56.90	O
ATOM	5185	CB	ASN	E	331	79.383	-27.480	31.603	1.00	55.73	C
ATOM	5186	N	VAL	E	332	77.627	-24.583	33.147	1.00	57.11	N
ATOM	5187	CA	VAL	E	332	77.916	-23.357	33.884	1.00	57.24	C
ATOM	5188	C	VAL	E	332	78.510	-23.565	35.271	1.00	57.22	C
ATOM	5189	O	VAL	E	332	78.233	-24.556	35.940	1.00	57.43	O
ATOM	5190	CB	VAL	E	332	76.647	-22.487	34.031	1.00	57.41	C
ATOM	5191	N	THR	E	333	79.334	-22.612	35.688	1.00	57.10	N
ATOM	5192	CA	THR	E	333	79.963	-22.634	37.001	1.00	57.30	C
ATOM	5193	C	THR	E	333	79.383	-21.436	37.746	1.00	57.39	C
ATOM	5194	O	THR	E	333	78.661	-20.632	37.155	1.00	57.78	O
ATOM	5195	CB	THR	E	333	81.493	-22.459	36.901	1.00	57.30	C
ATOM	5196	N	PHE	E	334	79.684	-21.309	39.033	1.00	57.05	N
ATOM	5197	CA	PHE	E	334	79.170	-20.175	39.796	1.00	56.67	C
ATOM	5198	C	PHE	E	334	79.828	-18.894	39.280	1.00	55.98	C
ATOM	5199	O	PHE	E	334	79.302	-17.794	39.455	1.00	55.93	O
ATOM	5200	CB	PHE	E	334	79.456	-20.357	41.292	1.00	57.08	C
ATOM	5201	N	GLU	E	335	80.977	-19.052	38.633	1.00	54.82	N
ATOM	5202	CA	GLU	E	335	81.707	-17.917	38.087	1.00	54.10	C
ATOM	5203	C	GLU	E	335	80.959	-17.274	36.911	1.00	53.27	C
ATOM	5204	O	GLU	E	335	81.119	-16.082	36.642	1.00	52.91	O
ATOM	5205	CB	GLU	E	335	83.102	-18.368	37.634	1.00	54.01	C
ATOM	5206	N	ASP	E	336	80.140	-18.060	36.217	1.00	52.36	N
ATOM	5207	CA	ASP	E	336	79.394	-17.540	35.074	1.00	51.65	C
ATOM	5208	C	ASP	E	336	78.263	-16.596	35.459	1.00	50.65	C
ATOM	5209	O	ASP	E	336	77.808	-15.814	34.632	1.00	50.46	O
ATOM	5210	CB	ASP	E	336	78.829	-18.678	34.221	1.00	51.50	C
ATOM	5211	CG	ASP	E	336	79.914	-19.483	33.546	1.00	51.96	C

Table 3

ATOM	5212	OD1	ASP	E	336	80.862	-18.865	33.010	1.00	50.96	O
ATOM	5213	OD2	ASP	E	336	79.817	-20.728	33.549	1.00	51.31	O
ATOM	5214	N	ALA	E	337	77.808	-16.671	36.704	1.00	49.76	N
ATOM	5215	CA	ALA	E	337	76.731	-15.803	37.167	1.00	49.26	C
ATOM	5216	C	ALA	E	337	77.085	-14.351	36.894	1.00	49.07	C
ATOM	5217	O	ALA	E	337	78.259	-13.976	36.914	1.00	49.31	O
ATOM	5218	CB	ALA	E	337	76.496	-16.005	38.658	1.00	49.40	C
ATOM	5219	N	GLY	E	338	76.072	-13.529	36.636	1.00	48.46	N
ATOM	5220	CA	GLY	E	338	76.341	-12.127	36.366	1.00	47.35	C
ATOM	5221	C	GLY	E	338	75.481	-11.508	35.280	1.00	46.17	C
ATOM	5222	O	GLY	E	338	74.546	-12.134	34.772	1.00	45.24	O
ATOM	5223	N	GLU	E	339	75.818	-10.270	34.924	1.00	44.77	N
ATOM	5224	CA	GLU	E	339	75.089	-9.513	33.916	1.00	44.35	C
ATOM	5225	C	GLU	E	339	75.652	-9.701	32.496	1.00	42.94	C
ATOM	5226	O	GLU	E	339	76.840	-9.459	32.249	1.00	41.99	O
ATOM	5227	CB	GLU	E	339	75.121	-8.028	34.296	1.00	44.65	C
ATOM	5228	CG	GLU	E	339	74.100	-7.163	33.591	1.00	46.70	C
ATOM	5229	CD	GLU	E	339	74.220	-5.708	33.992	1.00	47.49	C
ATOM	5230	OE1	GLU	E	339	74.666	-5.448	35.127	1.00	48.94	O
ATOM	5231	OE2	GLU	E	339	73.862	-4.823	33.186	1.00	48.65	O
ATOM	5232	N	TYR	E	340	74.790	-10.145	31.579	1.00	41.66	N
ATOM	5233	CA	TYR	E	340	75.160	-10.339	30.172	1.00	40.54	C
ATOM	5234	C	TYR	E	340	74.485	-9.267	29.314	1.00	39.53	C
ATOM	5235	O	TYR	E	340	73.307	-8.955	29.504	1.00	39.67	O
ATOM	5236	CB	TYR	E	340	74.754	-11.736	29.687	1.00	40.75	C
ATOM	5237	CG	TYR	E	340	75.595	-12.833	30.302	1.00	43.00	C
ATOM	5238	CD1	TYR	E	340	75.423	-13.199	31.637	1.00	43.39	C
ATOM	5239	CD2	TYR	E	340	76.624	-13.446	29.576	1.00	42.97	C
ATOM	5240	CE1	TYR	E	340	76.260	-14.144	32.246	1.00	43.85	C
ATOM	5241	CE2	TYR	E	340	77.465	-14.391	30.172	1.00	44.16	C
ATOM	5242	CZ	TYR	E	340	77.279	-14.732	31.513	1.00	44.42	C
ATOM	5243	OH	TYR	E	340	78.124	-15.631	32.126	1.00	43.97	O
ATOM	5244	N	THR	E	341	75.225	-8.718	28.356	1.00	37.76	N
ATOM	5245	CA	THR	E	341	74.692	-7.661	27.514	1.00	36.11	C
ATOM	5246	C	THR	E	341	74.844	-7.882	26.013	1.00	35.29	C
ATOM	5247	O	THR	E	341	75.913	-8.245	25.535	1.00	35.15	O
ATOM	5248	CB	THR	E	341	75.384	-6.311	27.837	1.00	35.87	C
ATOM	5249	OG1	THR	E	341	75.114	-5.936	29.192	1.00	36.17	O
ATOM	5250	CG2	THR	E	341	74.901	-5.219	26.902	1.00	35.45	C
ATOM	5251	N	CYS	E	342	73.765	-7.667	25.273	1.00	34.30	N
ATOM	5252	CA	CYS	E	342	73.838	-7.755	23.820	1.00	33.50	C
ATOM	5253	C	CYS	E	342	73.962	-6.303	23.397	1.00	32.08	C
ATOM	5254	O	CYS	E	342	73.088	-5.491	23.685	1.00	31.94	O
ATOM	5255	CB	CYS	E	342	72.577	-8.347	23.201	1.00	33.31	C
ATOM	5256	SG	CYS	E	342	72.527	-8.113	21.399	1.00	35.61	S
ATOM	5257	N	LEU	E	343	75.056	-5.977	22.724	1.00	31.56	N
ATOM	5258	CA	LEU	E	343	75.292	-4.610	22.278	1.00	30.17	C
ATOM	5259	C	LEU	E	343	75.366	-4.522	20.758	1.00	29.58	C
ATOM	5260	O	LEU	E	343	76.132	-5.245	20.121	1.00	29.15	O
ATOM	5261	CB	LEU	E	343	76.581	-4.080	22.913	1.00	29.36	C
ATOM	5262	CG	LEU	E	343	76.957	-2.619	22.680	1.00	28.90	C
ATOM	5263	CD1	LEU	E	343	77.509	-2.017	23.964	1.00	29.70	C
ATOM	5264	CD2	LEU	E	343	77.972	-2.529	21.551	1.00	29.96	C
ATOM	5265	N	ALA	E	344	74.552	-3.633	20.189	1.00	28.85	N
ATOM	5266	CA	ALA	E	344	74.505	-3.430	18.751	1.00	28.63	C
ATOM	5267	C	ALA	E	344	74.810	-1.983	18.371	1.00	28.87	C
ATOM	5268	O	ALA	E	344	74.230	-1.039	18.915	1.00	29.04	O
ATOM	5269	CB	ALA	E	344	73.138	-3.837	18.206	1.00	28.59	C
ATOM	5270	N	GLY	E	345	75.725	-1.806	17.425	1.00	28.49	N
ATOM	5271	CA	GLY	E	345	76.060	-0.465	16.998	1.00	27.62	C
ATOM	5272	C	GLY	E	345	76.246	-0.322	15.499	1.00	27.14	C
ATOM	5273	O	GLY	E	345	76.625	-1.281	14.821	1.00	25.46	O
ATOM	5274	N	ASN	E	346	75.922	0.869	14.986	1.00	26.69	N
ATOM	5275	CA	ASN	E	346	76.132	1.217	13.579	1.00	27.69	C
ATOM	5276	C	ASN	E	346	76.744	2.621	13.563	1.00	28.33	C
ATOM	5277	O	ASN	E	346	77.004	3.190	14.623	1.00	27.30	O

Table 3

ATOM	5278	CB	ASN	E	346	74.836	1.164	12.736	1.00	27.21	C
ATOM	5279	CG	ASN	E	346	73.761	2.145	13.206	1.00	27.40	C
ATOM	5280	OD1	ASN	E	346	74.058	3.212	13.742	1.00	26.31	O
ATOM	5281	ND2	ASN	E	346	72.497	1.787	12.974	1.00	24.84	N
ATOM	5282	N	SER	E	347	76.985	3.178	12.378	1.00	31.00	N
ATOM	5283	CA	SER	E	347	77.602	4.505	12.281	1.00	33.49	C
ATOM	5284	C	SER	E	347	76.856	5.605	13.024	1.00	34.58	C
ATOM	5285	O	SER	E	347	77.469	6.572	13.463	1.00	34.82	O
ATOM	5286	CB	SER	E	347	77.772	4.942	10.816	1.00	35.65	C
ATOM	5287	OG	SER	E	347	76.530	5.254	10.203	1.00	38.30	O
ATOM	5288	N	ILE	E	348	75.541	5.466	13.168	1.00	34.99	N
ATOM	5289	CA	ILE	E	348	74.751	6.483	13.864	1.00	35.50	C
ATOM	5290	C	ILE	E	348	74.840	6.414	15.387	1.00	35.19	C
ATOM	5291	O	ILE	E	348	74.938	7.444	16.048	1.00	36.08	O
ATOM	5292	CB	ILE	E	348	73.265	6.399	13.462	1.00	36.91	C
ATOM	5293	CG1	ILE	E	348	73.135	6.618	11.955	1.00	37.03	C
ATOM	5294	CG2	ILE	E	348	72.451	7.433	14.235	1.00	37.40	C
ATOM	5295	CD1	ILE	E	348	71.779	6.275	11.412	1.00	39.10	C
ATOM	5296	N	GLY	E	349	74.800	5.209	15.945	1.00	34.48	N
ATOM	5297	CA	GLY	E	349	74.871	5.074	17.388	1.00	33.86	C
ATOM	5298	C	GLY	E	349	74.870	3.648	17.923	1.00	33.75	C
ATOM	5299	O	GLY	E	349	74.922	2.681	17.165	1.00	33.05	O
ATOM	5300	N	ILE	E	350	74.789	3.532	19.247	1.00	33.83	N
ATOM	5301	CA	ILE	E	350	74.804	2.248	19.935	1.00	33.98	C
ATOM	5302	C	ILE	E	350	73.567	1.992	20.808	1.00	34.07	C
ATOM	5303	O	ILE	E	350	73.010	2.912	21.408	1.00	34.17	O
ATOM	5304	CB	ILE	E	350	76.056	2.133	20.838	1.00	33.87	C
ATOM	5305	CG1	ILE	E	350	77.320	2.329	20.004	1.00	34.32	C
ATOM	5306	CG2	ILE	E	350	76.088	0.779	21.531	1.00	35.06	C
ATOM	5307	CD1	ILE	E	350	78.577	2.477	20.839	1.00	35.18	C
ATOM	5308	N	SER	E	351	73.153	0.729	20.864	1.00	33.25	N
ATOM	5309	CA	SER	E	351	72.019	0.296	21.682	1.00	33.20	C
ATOM	5310	C	SER	E	351	72.410	-1.014	22.363	1.00	32.62	C
ATOM	5311	O	SER	E	351	73.214	-1.775	21.821	1.00	32.18	O
ATOM	5312	CB	SER	E	351	70.778	0.064	20.817	1.00	34.11	C
ATOM	5313	OG	SER	E	351	70.292	1.276	20.274	1.00	37.01	O
ATOM	5314	N	PHE	E	352	71.858	-1.275	23.544	1.00	32.40	N
ATOM	5315	CA	PHE	E	352	72.163	-2.513	24.260	1.00	33.36	C
ATOM	5316	C	PHE	E	352	71.119	-2.886	25.311	1.00	33.02	C
ATOM	5317	O	PHE	E	352	70.558	-2.018	25.977	1.00	33.29	O
ATOM	5318	CB	PHE	E	352	73.558	-2.413	24.913	1.00	34.47	C
ATOM	5319	CG	PHE	E	352	73.690	-1.297	25.921	1.00	36.24	C
ATOM	5320	CD1	PHE	E	352	73.218	-1.450	27.225	1.00	37.18	C
ATOM	5321	CD2	PHE	E	352	74.281	-0.091	25.564	1.00	36.74	C
ATOM	5322	CE1	PHE	E	352	73.335	-0.413	28.160	1.00	38.09	C
ATOM	5323	CE2	PHE	E	352	74.403	0.948	26.484	1.00	38.13	C
ATOM	5324	CZ	PHE	E	352	73.929	0.788	27.785	1.00	38.23	C
ATOM	5325	N	HIS	E	353	70.856	-4.182	25.443	1.00	33.31	N
ATOM	5326	CA	HIS	E	353	69.904	-4.687	26.438	1.00	34.40	C
ATOM	5327	C	HIS	E	353	70.655	-5.730	27.274	1.00	35.40	C
ATOM	5328	O	HIS	E	353	71.478	-6.484	26.741	1.00	35.06	O
ATOM	5329	CB	HIS	E	353	68.670	-5.332	25.777	1.00	33.36	C
ATOM	5330	CG	HIS	E	353	67.700	-4.351	25.187	1.00	33.71	C
ATOM	5331	ND1	HIS	E	353	66.500	-4.735	24.622	1.00	33.31	N
ATOM	5332	CD2	HIS	E	353	67.745	-2.999	25.075	1.00	32.51	C
ATOM	5333	CE1	HIS	E	353	65.851	-3.668	24.192	1.00	31.00	C
ATOM	5334	NE2	HIS	E	353	66.586	-2.603	24.455	1.00	31.60	N
ATOM	5335	N	SER	E	354	70.374	-5.766	28.576	1.00	36.20	N
ATOM	5336	CA	SER	E	354	71.045	-6.698	29.479	1.00	37.46	C
ATOM	5337	C	SER	E	354	70.112	-7.646	30.221	1.00	38.17	C
ATOM	5338	O	SER	E	354	68.928	-7.364	30.425	1.00	37.52	O
ATOM	5339	CB	SER	E	354	71.873	-5.928	30.507	1.00	37.67	C
ATOM	5340	OG	SER	E	354	72.763	-5.031	29.869	1.00	40.40	O
ATOM	5341	N	ALA	E	355	70.670	-8.779	30.631	1.00	39.18	N
ATOM	5342	CA	ALA	E	355	69.919	-9.779	31.375	1.00	40.68	C
ATOM	5343	C	ALA	E	355	70.850	-10.349	32.437	1.00	41.59	C

Table 3

ATOM	5344	O	ALA	E	355	72.072	-10.179	32.359	1.00	42.09	O
ATOM	5345	CB	ALA	E	355	69.428	-10.886	30.438	1.00	40.51	C
ATOM	5346	N	TRP	E	356	70.273	-11.023	33.425	1.00	42.87	N
ATOM	5347	CA	TRP	E	356	71.055	-11.597	34.508	1.00	44.67	C
ATOM	5348	C	TRP	E	356	71.021	-13.119	34.519	1.00	44.89	C
ATOM	5349	O	TRP	E	356	69.995	-13.734	34.237	1.00	44.45	O
ATOM	5350	CB	TRP	E	356	70.542	-11.068	35.856	1.00	46.66	C
ATOM	5351	CG	TRP	E	356	71.644	-10.589	36.745	1.00	48.84	C
ATOM	5352	CD1	TRP	E	356	72.536	-11.360	37.436	1.00	49.57	C
ATOM	5353	CD2	TRP	E	356	72.051	-9.229	36.940	1.00	49.66	C
ATOM	5354	NE1	TRP	E	356	73.483	-10.563	38.041	1.00	50.48	N
ATOM	5355	CE2	TRP	E	356	73.209	-9.251	37.752	1.00	50.21	C
ATOM	5356	CE3	TRP	E	356	71.551	-7.992	36.501	1.00	50.27	C
ATOM	5357	CZ2	TRP	E	356	73.883	-8.080	38.137	1.00	50.52	C
ATOM	5358	CZ3	TRP	E	356	72.221	-6.824	36.883	1.00	50.86	C
ATOM	5359	CH2	TRP	E	356	73.375	-6.881	37.693	1.00	50.85	C
ATOM	5360	N	LEU	E	357	72.163	-13.719	34.835	1.00	45.24	N
ATOM	5361	CA	LEU	E	357	72.275	-15.165	34.929	1.00	46.28	C
ATOM	5362	C	LEU	E	357	72.416	-15.529	36.404	1.00	47.03	C
ATOM	5363	O	LEU	E	357	73.362	-15.085	37.064	1.00	47.09	O
ATOM	5364	CB	LEU	E	357	73.516	-15.662	34.180	1.00	46.24	C
ATOM	5365	CG	LEU	E	357	73.855	-17.138	34.418	1.00	46.22	C
ATOM	5366	CD1	LEU	E	357	72.722	-18.004	33.879	1.00	45.74	C
ATOM	5367	CD2	LEU	E	357	75.184	-17.493	33.742	1.00	45.83	C
ATOM	5368	N	THR	E	358	71.481	-16.323	36.920	1.00	47.80	N
ATOM	5369	CA	THR	E	358	71.525	-16.754	38.317	1.00	49.40	C
ATOM	5370	C	THR	E	358	71.935	-18.221	38.360	1.00	49.88	C
ATOM	5371	O	THR	E	358	71.300	-19.067	37.725	1.00	49.63	O
ATOM	5372	CB	THR	E	358	70.144	-16.626	39.010	1.00	50.27	C
ATOM	5373	OG1	THR	E	358	69.709	-15.263	38.980	1.00	51.35	O
ATOM	5374	CG2	THR	E	358	70.231	-17.083	40.466	1.00	51.00	C
ATOM	5375	N	VAL	E	359	72.995	-18.515	39.108	1.00	50.99	N
ATOM	5376	CA	VAL	E	359	73.496	-19.878	39.239	1.00	52.26	C
ATOM	5377	C	VAL	E	359	73.291	-20.372	40.671	1.00	53.50	C
ATOM	5378	O	VAL	E	359	73.879	-19.828	41.617	1.00	53.34	O
ATOM	5379	CB	VAL	E	359	75.001	-19.954	38.883	1.00	52.03	C
ATOM	5380	N	LEU	E	360	72.454	-21.405	40.806	1.00	54.72	N
ATOM	5381	CA	LEU	E	360	72.118	-22.014	42.095	1.00	55.76	C
ATOM	5382	C	LEU	E	360	73.006	-23.217	42.403	1.00	56.27	C
ATOM	5383	O	LEU	E	360	73.018	-24.147	41.566	1.00	56.89	O
ATOM	5384	CB	LEU	E	360	70.650	-22.456	42.095	1.00	55.94	C
TER	5385		LEU	E	360						
ATOM	5386	N	ASN	F	150	27.465	32.706	43.234	1.00	47.18	N
ATOM	5387	CA	ASN	F	150	26.839	33.873	43.929	1.00	46.68	C
ATOM	5388	C	ASN	F	150	25.823	34.566	43.015	1.00	45.81	C
ATOM	5389	O	ASN	F	150	25.993	34.593	41.797	1.00	46.29	O
ATOM	5390	CB	ASN	F	150	27.924	34.872	44.357	1.00	46.26	C
ATOM	5391	N	LYS	F	151	24.769	35.116	43.612	1.00	45.07	N
ATOM	5392	CA	LYS	F	151	23.717	35.815	42.874	1.00	43.78	C
ATOM	5393	C	LYS	F	151	24.148	37.251	42.548	1.00	43.34	C
ATOM	5394	O	LYS	F	151	24.545	38.007	43.432	1.00	42.87	O
ATOM	5395	CB	LYS	F	151	22.421	35.835	43.695	1.00	43.03	C
ATOM	5396	N	ARG	F	152	24.073	37.627	41.274	1.00	42.12	N
ATOM	5397	CA	ARG	F	152	24.472	38.973	40.878	1.00	40.51	C
ATOM	5398	C	ARG	F	152	23.794	39.481	39.608	1.00	39.03	C
ATOM	5399	O	ARG	F	152	23.353	38.706	38.754	1.00	38.69	O
ATOM	5400	CB	ARG	F	152	25.988	39.035	40.701	1.00	40.57	C
ATOM	5401	CG	ARG	F	152	26.528	38.034	39.696	1.00	41.38	C
ATOM	5402	CD	ARG	F	152	28.045	38.053	39.645	1.00	40.83	C
ATOM	5403	NE	ARG	F	152	28.574	39.325	39.162	1.00	40.31	N
ATOM	5404	CZ	ARG	F	152	29.816	39.487	38.712	1.00	40.01	C
ATOM	5405	NH1	ARG	F	152	30.657	38.461	38.693	1.00	39.33	N
ATOM	5406	NH2	ARG	F	152	30.211	40.665	38.250	1.00	40.37	N
ATOM	5407	N	ALA	F	153	23.725	40.802	39.503	1.00	37.59	N
ATOM	5408	CA	ALA	F	153	23.127	41.470	38.361	1.00	36.00	C
ATOM	5409	C	ALA	F	153	23.905	41.142	37.085	1.00	34.93	C

Table 3

ATOM	5410	O	ALA	F	153	25.018	40.633	37.139	1.00	34.72	O
ATOM	5411	CB	ALA	F	153	23.105	42.987	38.604	1.00	35.68	C
ATOM	5412	N	PRO	F	154	23.322	41.436	35.916	1.00	34.45	N
ATOM	5413	CA	PRO	F	154	23.987	41.158	34.640	1.00	33.61	C
ATOM	5414	C	PRO	F	154	25.229	42.013	34.427	1.00	33.12	C
ATOM	5415	O	PRO	F	154	25.312	43.137	34.922	1.00	32.79	O
ATOM	5416	CB	PRO	F	154	22.894	41.447	33.624	1.00	33.95	C
ATOM	5417	CG	PRO	F	154	22.131	42.546	34.284	1.00	34.26	C
ATOM	5418	CD	PRO	F	154	22.018	42.086	35.698	1.00	33.81	C
ATOM	5419	N	TYR	F	155	26.194	41.465	33.697	1.00	33.26	N
ATOM	5420	CA	TYR	F	155	27.432	42.171	33.406	1.00	34.23	C
ATOM	5421	C	TYR	F	155	28.054	41.642	32.109	1.00	34.53	C
ATOM	5422	O	TYR	F	155	27.912	40.466	31.786	1.00	34.70	O
ATOM	5423	CB	TYR	F	155	28.416	42.010	34.571	1.00	35.21	C
ATOM	5424	CG	TYR	F	155	28.879	40.587	34.807	1.00	36.38	C
ATOM	5425	CD1	TYR	F	155	28.033	39.637	35.387	1.00	37.46	C
ATOM	5426	CD2	TYR	F	155	30.153	40.183	34.422	1.00	36.66	C
ATOM	5427	CE1	TYR	F	155	28.450	38.317	35.573	1.00	37.51	C
ATOM	5428	CE2	TYR	F	155	30.579	38.871	34.602	1.00	37.68	C
ATOM	5429	CZ	TYR	F	155	29.725	37.944	35.172	1.00	38.34	C
ATOM	5430	OH	TYR	F	155	30.150	36.637	35.313	1.00	39.80	O
ATOM	5431	N	TRP	F	156	28.731	42.519	31.373	1.00	34.56	N
ATOM	5432	CA	TRP	F	156	29.385	42.141	30.123	1.00	36.40	C
ATOM	5433	C	TRP	F	156	30.610	41.270	30.415	1.00	38.32	C
ATOM	5434	O	TRP	F	156	31.454	41.648	31.229	1.00	39.35	O
ATOM	5435	CB	TRP	F	156	29.828	43.402	29.369	1.00	34.91	C
ATOM	5436	CG	TRP	F	156	28.743	44.408	29.136	1.00	33.24	C
ATOM	5437	CD1	TRP	F	156	28.809	45.743	29.385	1.00	32.54	C
ATOM	5438	CD2	TRP	F	156	27.434	44.162	28.598	1.00	32.50	C
ATOM	5439	NE1	TRP	F	156	27.630	46.352	29.041	1.00	31.97	N
ATOM	5440	CE2	TRP	F	156	26.764	45.409	28.553	1.00	32.15	C
ATOM	5441	CE3	TRP	F	156	26.761	43.011	28.147	1.00	31.76	C
ATOM	5442	CZ2	TRP	F	156	25.447	45.544	28.079	1.00	31.23	C
ATOM	5443	CZ3	TRP	F	156	25.445	43.143	27.670	1.00	31.94	C
ATOM	5444	CH2	TRP	F	156	24.806	44.404	27.642	1.00	31.30	C
ATOM	5445	N	THR	F	157	30.710	40.121	29.748	1.00	40.38	N
ATOM	5446	CA	THR	F	157	31.826	39.198	29.952	1.00	42.48	C
ATOM	5447	C	THR	F	157	32.970	39.388	28.967	1.00	43.74	C
ATOM	5448	O	THR	F	157	33.988	38.708	29.059	1.00	44.97	O
ATOM	5449	CB	THR	F	157	31.353	37.738	29.878	1.00	43.02	C
ATOM	5450	OG1	THR	F	157	30.716	37.495	28.613	1.00	43.13	O
ATOM	5451	CG2	THR	F	157	30.371	37.453	31.004	1.00	43.29	C
ATOM	5452	N	ASN	F	158	32.808	40.306	28.022	1.00	45.46	N
ATOM	5453	CA	ASN	F	158	33.862	40.578	27.046	1.00	46.50	C
ATOM	5454	C	ASN	F	158	33.649	41.918	26.355	1.00	46.39	C
ATOM	5455	O	ASN	F	158	33.122	41.974	25.246	1.00	46.75	O
ATOM	5456	CB	ASN	F	158	33.936	39.472	25.988	1.00	48.38	C
ATOM	5457	CG	ASN	F	158	35.162	39.613	25.080	1.00	50.17	C
ATOM	5458	OD1	ASN	F	158	35.297	40.586	24.326	1.00	50.24	O
ATOM	5459	ND2	ASN	F	158	36.063	38.640	25.158	1.00	50.64	N
ATOM	5460	N	THR	F	159	34.075	42.992	27.015	1.00	46.28	N
ATOM	5461	CA	THR	F	159	33.927	44.340	26.480	1.00	46.80	C
ATOM	5462	C	THR	F	159	34.772	44.588	25.240	1.00	47.39	C
ATOM	5463	O	THR	F	159	34.495	45.516	24.479	1.00	47.37	O
ATOM	5464	CB	THR	F	159	34.302	45.422	27.530	1.00	47.53	C
ATOM	5465	OG1	THR	F	159	35.591	45.130	28.084	1.00	48.04	O
ATOM	5466	CG2	THR	F	159	33.269	45.471	28.657	1.00	48.15	C
ATOM	5467	N	GLU	F	160	35.807	43.770	25.048	1.00	47.49	N
ATOM	5468	CA	GLU	F	160	36.695	43.913	23.900	1.00	47.50	C
ATOM	5469	C	GLU	F	160	35.894	43.832	22.602	1.00	47.37	C
ATOM	5470	O	GLU	F	160	36.019	44.683	21.727	1.00	47.28	O
ATOM	5471	CB	GLU	F	160	37.764	42.812	23.922	1.00	47.86	C
ATOM	5472	N	LYS	F	161	35.058	42.805	22.505	1.00	46.88	N
ATOM	5473	CA	LYS	F	161	34.225	42.574	21.335	1.00	46.63	C
ATOM	5474	C	LYS	F	161	33.062	43.566	21.194	1.00	45.96	C
ATOM	5475	O	LYS	F	161	32.268	43.452	20.261	1.00	45.92	O

Table 3

ATOM	5476	CB	LYS	F	161	33.663	41.144	21.386	1.00	47.58	C
ATOM	5477	N	MET	F	162	32.962	44.528	22.111	1.00	45.07	N
ATOM	5478	CA	MET	F	162	31.876	45.514	22.088	1.00	44.13	C
ATOM	5479	C	MET	F	162	32.350	46.941	21.834	1.00	43.91	C
ATOM	5480	O	MET	F	162	31.532	47.852	21.671	1.00	43.60	C
ATOM	5481	CB	MET	F	162	31.110	45.491	23.417	1.00	43.45	O
ATOM	5482	CG	MET	F	162	30.339	44.215	23.708	1.00	42.75	C
ATOM	5483	SD	MET	F	162	29.681	44.224	25.407	1.00	44.78	S
ATOM	5484	CE	MET	F	162	28.618	45.682	25.364	1.00	42.60	C
ATOM	5485	N	GLU	F	163	33.663	47.139	21.796	1.00	43.66	N
ATOM	5486	CA	GLU	F	163	34.228	48.474	21.595	1.00	43.05	C
ATOM	5487	C	GLU	F	163	33.900	49.117	20.245	1.00	42.02	C
ATOM	5488	O	GLU	F	163	33.747	50.336	20.150	1.00	42.39	O
ATOM	5489	CB	GLU	F	163	35.748	48.432	21.790	1.00	43.51	C
ATOM	5490	N	LYS	F	164	33.801	48.302	19.201	1.00	40.60	N
ATOM	5491	CA	LYS	F	164	33.482	48.806	17.866	1.00	38.52	C
ATOM	5492	C	LYS	F	164	31.982	49.137	17.821	1.00	37.22	C
ATOM	5493	O	LYS	F	164	31.152	48.253	17.609	1.00	36.84	O
ATOM	5494	CB	LYS	F	164	33.835	47.742	16.820	1.00	37.86	C
ATOM	5495	CG	LYS	F	164	33.861	48.266	15.410	1.00	37.96	C
ATOM	5496	CD	LYS	F	164	34.340	47.228	14.408	1.00	37.78	C
ATOM	5497	CE	LYS	F	164	33.188	46.490	13.757	1.00	38.14	C
ATOM	5498	NZ	LYS	F	164	33.621	45.853	12.478	1.00	39.11	N
ATOM	5499	N	ARG	F	165	31.644	50.407	18.025	1.00	35.96	N
ATOM	5500	CA	ARG	F	165	30.247	50.843	18.044	1.00	35.34	C
ATOM	5501	C	ARG	F	165	29.614	51.005	16.672	1.00	33.90	C
ATOM	5502	O	ARG	F	165	28.468	50.609	16.466	1.00	32.97	O
ATOM	5503	CB	ARG	F	165	30.110	52.151	18.833	1.00	36.33	C
ATOM	5504	CG	ARG	F	165	30.254	51.954	20.333	1.00	39.65	C
ATOM	5505	CD	ARG	F	165	30.371	53.273	21.066	1.00	42.36	C
ATOM	5506	NE	ARG	F	165	30.713	53.076	22.472	1.00	45.53	N
ATOM	5507	CZ	ARG	F	165	29.837	52.783	23.429	1.00	47.06	C
ATOM	5508	NH1	ARG	F	165	28.540	52.656	23.148	1.00	47.85	N
ATOM	5509	NH2	ARG	F	165	30.262	52.607	24.671	1.00	47.69	N
ATOM	5510	N	LEU	F	166	30.364	51.593	15.746	1.00	33.06	N
ATOM	5511	CA	LEU	F	166	29.905	51.808	14.379	1.00	32.49	C
ATOM	5512	C	LEU	F	166	30.309	50.638	13.497	1.00	32.80	C
ATOM	5513	O	LEU	F	166	31.498	50.360	13.350	1.00	32.69	O
ATOM	5514	CB	LEU	F	166	30.528	53.083	13.801	1.00	30.33	C
ATOM	5515	CG	LEU	F	166	30.342	53.309	12.288	1.00	31.08	C
ATOM	5516	CD1	LEU	F	166	28.859	53.376	11.924	1.00	28.89	C
ATOM	5517	CD2	LEU	F	166	31.033	54.592	11.879	1.00	28.85	C
ATOM	5518	N	HIS	F	167	29.322	49.957	12.918	1.00	32.67	N
ATOM	5519	CA	HIS	F	167	29.565	48.837	12.015	1.00	32.58	C
ATOM	5520	C	HIS	F	167	29.153	49.268	10.614	1.00	33.20	C
ATOM	5521	O	HIS	F	167	27.959	49.316	10.302	1.00	33.21	O
ATOM	5522	CB	HIS	F	167	28.737	47.609	12.413	1.00	33.93	C
ATOM	5523	CG	HIS	F	167	29.317	46.814	13.541	1.00	35.95	C
ATOM	5524	ND1	HIS	F	167	29.561	47.350	14.788	1.00	37.05	N
ATOM	5525	CD2	HIS	F	167	29.699	45.516	13.609	1.00	35.66	C
ATOM	5526	CE1	HIS	F	167	30.070	46.418	15.574	1.00	36.41	C
ATOM	5527	NE2	HIS	F	167	30.164	45.296	14.882	1.00	36.24	N
ATOM	5528	N	ALA	F	168	30.135	49.601	9.782	1.00	32.49	N
ATOM	5529	CA	ALA	F	168	29.872	50.015	8.408	1.00	32.62	C
ATOM	5530	C	ALA	F	168	30.255	48.815	7.562	1.00	32.27	C
ATOM	5531	O	ALA	F	168	31.394	48.362	7.614	1.00	32.31	O
ATOM	5532	CB	ALA	F	168	30.739	51.224	8.040	1.00	33.46	C
ATOM	5533	N	VAL	F	169	29.310	48.299	6.786	1.00	31.84	N
ATOM	5534	CA	VAL	F	169	29.574	47.125	5.965	1.00	31.85	C
ATOM	5535	C	VAL	F	169	29.011	47.239	4.557	1.00	31.61	C
ATOM	5536	O	VAL	F	169	28.063	47.977	4.311	1.00	31.56	O
ATOM	5537	CB	VAL	F	169	28.959	45.859	6.596	1.00	32.55	C
ATOM	5538	CG1	VAL	F	169	29.416	45.725	8.046	1.00	33.61	C
ATOM	5539	CG2	VAL	F	169	27.441	45.928	6.515	1.00	31.02	C
ATOM	5540	N	PRO	F	170	29.592	46.491	3.616	1.00	31.38	N
ATOM	5541	CA	PRO	F	170	29.123	46.525	2.234	1.00	31.61	C

Table 3

ATOM	5542	C	PRO	F	170	27.809	45.763	2.103	1.00	32.21	C
ATOM	5543	O	PRO	F	170	27.585	44.761	2.789	1.00	31.90	O
ATOM	5544	CB	PRO	F	170	30.267	45.863	1.472	1.00	31.99	C
ATOM	5545	CG	PRO	F	170	30.758	44.824	2.463	1.00	31.40	C
ATOM	5546	CD	PRO	F	170	30.722	45.556	3.784	1.00	30.53	C
ATOM	5547	N	ALA	F	171	26.931	46.251	1.234	1.00	33.14	C
ATOM	5548	CA	ALA	F	171	25.640	45.606	1.009	1.00	33.63	N
ATOM	5549	C	ALA	F	171	25.821	44.140	0.596	1.00	33.79	C
ATOM	5550	O	ALA	F	171	26.811	43.779	-0.049	1.00	32.97	C
ATOM	5551	CB	ALA	F	171	24.863	46.362	-0.063	1.00	33.56	O
ATOM	5552	N	ALA	F	172	24.863	43.303	1.001	1.00	33.61	C
ATOM	5553	CA	ALA	F	172	24.849	41.872	0.699	1.00	33.16	C
ATOM	5554	C	ALA	F	172	25.643	41.011	1.684	1.00	33.77	C
ATOM	5555	O	ALA	F	172	25.654	39.778	1.579	1.00	33.75	C
ATOM	5556	CB	ALA	F	172	25.328	41.622	-0.744	1.00	33.35	O
ATOM	5557	N	ASN	F	173	26.310	41.640	2.642	1.00	33.18	C
ATOM	5558	CA	ASN	F	173	27.061	40.866	3.629	1.00	33.48	C
ATOM	5559	C	ASN	F	173	26.191	40.528	4.839	1.00	32.36	C
ATOM	5560	O	ASN	F	173	25.077	41.033	4.980	1.00	31.26	C
ATOM	5561	CB	ASN	F	173	28.314	41.636	4.062	1.00	34.43	O
ATOM	5562	CG	ASN	F	173	29.483	41.423	3.108	1.00	36.77	C
ATOM	5563	OD1	ASN	F	173	29.307	41.276	1.890	1.00	37.96	C
ATOM	5564	ND2	ASN	F	173	30.683	41.413	3.657	1.00	38.51	O
ATOM	5565	N	THR	F	174	26.698	39.648	5.693	1.00	31.64	N
ATOM	5566	CA	THR	F	174	26.000	39.268	6.913	1.00	30.65	C
ATOM	5567	C	THR	F	174	26.589	40.107	8.047	1.00	30.96	C
ATOM	5568	O	THR	F	174	27.799	40.333	8.083	1.00	31.98	C
ATOM	5569	CB	THR	F	174	26.217	37.779	7.249	1.00	29.86	O
ATOM	5570	OG1	THR	F	174	25.397	36.961	6.402	1.00	30.18	C
ATOM	5571	CG2	THR	F	174	25.869	37.507	8.692	1.00	29.82	C
ATOM	5572	N	VAL	F	175	25.741	40.573	8.961	1.00	30.45	C
ATOM	5573	CA	VAL	F	175	26.200	41.363	10.100	1.00	30.13	N
ATOM	5574	C	VAL	F	175	25.868	40.632	11.394	1.00	30.00	C
ATOM	5575	O	VAL	F	175	24.807	40.009	11.514	1.00	29.84	C
ATOM	5576	CB	VAL	F	175	25.521	42.754	10.153	1.00	30.57	O
ATOM	5577	CG1	VAL	F	175	26.040	43.542	11.348	1.00	31.35	C
ATOM	5578	CG2	VAL	F	175	25.807	43.510	8.890	1.00	30.75	C
ATOM	5579	N	LYS	F	176	26.775	40.693	12.360	1.00	29.06	C
ATOM	5580	CA	LYS	F	176	26.538	40.047	13.640	1.00	29.99	N
ATOM	5581	C	LYS	F	176	26.914	40.962	14.805	1.00	30.49	C
ATOM	5582	O	LYS	F	176	28.048	41.443	14.894	1.00	30.73	C
ATOM	5583	CB	LYS	F	176	27.328	38.734	13.733	1.00	32.08	O
ATOM	5584	CG	LYS	F	176	27.054	37.893	15.000	1.00	34.61	C
ATOM	5585	CD	LYS	F	176	27.852	36.559	15.005	1.00	35.52	C
ATOM	5586	CE	LYS	F	176	27.675	35.791	16.324	1.00	38.38	C
ATOM	5587	NZ	LYS	F	176	28.376	34.451	16.397	1.00	37.91	C
ATOM	5588	N	PHE	F	177	25.953	41.213	15.688	1.00	29.86	N
ATOM	5589	CA	PHE	F	177	26.198	42.038	16.861	1.00	29.32	N
ATOM	5590	C	PHE	F	177	26.219	41.125	18.065	1.00	29.40	C
ATOM	5591	O	PHE	F	177	25.412	40.210	18.156	1.00	30.08	C
ATOM	5592	CB	PHE	F	177	25.095	43.080	17.024	1.00	28.12	O
ATOM	5593	CG	PHE	F	177	25.075	44.108	15.931	1.00	28.38	C
ATOM	5594	CD1	PHE	F	177	26.193	44.903	15.689	1.00	27.55	C
ATOM	5595	CD2	PHE	F	177	23.929	44.306	15.163	1.00	28.25	C
ATOM	5596	CE1	PHE	F	177	26.170	45.877	14.709	1.00	27.35	C
ATOM	5597	CE2	PHE	F	177	23.897	45.285	14.176	1.00	28.12	C
ATOM	5598	CZ	PHE	F	177	25.021	46.073	13.949	1.00	28.28	C
ATOM	5599	N	ARG	F	178	27.142	41.371	18.988	1.00	29.44	C
ATOM	5600	CA	ARG	F	178	27.254	40.549	20.187	1.00	29.63	N
ATOM	5601	C	ARG	F	178	27.345	41.365	21.481	1.00	29.59	C
ATOM	5602	O	ARG	F	178	27.910	42.467	21.513	1.00	27.47	C
ATOM	5603	CB	ARG	F	178	28.489	39.639	20.097	1.00	30.99	O
ATOM	5604	CG	ARG	F	178	28.567	38.762	18.847	1.00	36.16	C
ATOM	5605	CD	ARG	F	178	29.692	37.737	18.978	1.00	38.76	C
ATOM	5606	NE	ARG	F	178	29.502	36.952	20.194	1.00	43.37	C
ATOM	5607	CZ	ARG	F	178	30.425	36.178	20.760	1.00	45.05	N

Table 3

ATOM	5608	NH1	ARG	F	178	31.636	36.065	20.222	1.00	46.10	N
ATOM	5609	NH2	ARG	F	178	30.138	35.537	21.888	1.00	45.60	N
ATOM	5610	N	CYS	F	179	26.790	40.799	22.549	1.00	28.88	N
ATOM	5611	CA	CYS	F	179	26.820	41.419	23.863	1.00	30.56	C
ATOM	5612	C	CYS	F	179	27.008	40.310	24.903	1.00	30.82	C
ATOM	5613	O	CYS	F	179	26.125	40.044	25.719	1.00	30.14	O
ATOM	5614	CB	CYS	F	179	25.522	42.197	24.090	1.00	31.07	C
ATOM	5615	SG	CYS	F	179	25.381	43.590	22.916	1.00	32.29	S
ATOM	5616	N	PRO	F	180	28.178	39.646	24.877	1.00	31.38	N
ATOM	5617	CA	PRO	F	180	28.499	38.554	25.806	1.00	31.88	C
ATOM	5618	C	PRO	F	180	28.193	38.983	27.228	1.00	31.88	C
ATOM	5619	O	PRO	F	180	28.736	39.975	27.700	1.00	31.46	O
ATOM	5620	CB	PRO	F	180	29.997	38.330	25.572	1.00	31.52	C
ATOM	5621	CG	PRO	F	180	30.177	38.721	24.136	1.00	31.75	C
ATOM	5622	CD	PRO	F	180	29.353	39.988	24.049	1.00	30.52	C
ATOM	5623	N	ALA	F	181	27.325	38.242	27.908	1.00	33.13	N
ATOM	5624	CA	ALA	F	181	26.956	38.600	29.271	1.00	34.09	C
ATOM	5625	C	ALA	F	181	26.984	37.457	30.285	1.00	35.33	C
ATOM	5626	O	ALA	F	181	26.913	36.283	29.931	1.00	35.01	O
ATOM	5627	CB	ALA	F	181	25.573	39.242	29.261	1.00	33.08	C
ATOM	5628	N	GLY	F	182	27.078	37.836	31.558	1.00	37.02	N
ATOM	5629	CA	GLY	F	182	27.078	36.882	32.653	1.00	37.61	C
ATOM	5630	C	GLY	F	182	26.039	37.337	33.661	1.00	38.86	C
ATOM	5631	O	GLY	F	182	25.473	38.427	33.512	1.00	39.18	O
ATOM	5632	N	GLY	F	183	25.787	36.523	34.684	1.00	39.21	N
ATOM	5633	CA	GLY	F	183	24.808	36.877	35.696	1.00	39.07	C
ATOM	5634	C	GLY	F	183	24.147	35.664	36.334	1.00	39.97	C
ATOM	5635	O	GLY	F	183	24.067	34.593	35.724	1.00	39.49	O
ATOM	5636	N	ASN	F	184	23.669	35.833	37.563	1.00	40.16	N
ATOM	5637	CA	ASN	F	184	23.009	34.753	38.289	1.00	41.28	C
ATOM	5638	C	ASN	F	184	21.817	35.278	39.081	1.00	41.39	C
ATOM	5639	O	ASN	F	184	21.978	36.018	40.042	1.00	41.84	O
ATOM	5640	CB	ASN	F	184	24.000	34.069	39.239	1.00	40.91	C
ATOM	5641	N	PRO	F	185	20.602	34.861	38.713	1.00	42.38	N
ATOM	5642	CA	PRO	F	185	20.293	33.939	37.617	1.00	42.85	C
ATOM	5643	C	PRO	F	185	20.635	34.437	36.212	1.00	44.15	C
ATOM	5644	O	PRO	F	185	20.856	35.633	35.990	1.00	44.57	O
ATOM	5645	CB	PRO	F	185	18.798	33.686	37.794	1.00	42.29	C
ATOM	5646	CG	PRO	F	185	18.307	34.969	38.373	1.00	42.96	C
ATOM	5647	CD	PRO	F	185	19.370	35.301	39.391	1.00	42.46	C
ATOM	5648	N	MET	F	186	20.681	33.495	35.273	1.00	44.62	N
ATOM	5649	CA	MET	F	186	20.972	33.778	33.873	1.00	44.74	C
ATOM	5650	C	MET	F	186	20.074	34.892	33.347	1.00	43.80	C
ATOM	5651	O	MET	F	186	18.852	34.763	33.322	1.00	43.60	O
ATOM	5652	CB	MET	F	186	20.750	32.518	33.040	1.00	46.95	C
ATOM	5653	CG	MET	F	186	22.018	31.918	32.466	1.00	49.12	C
ATOM	5654	SD	MET	F	186	22.712	32.953	31.179	1.00	50.87	S
ATOM	5655	CE	MET	F	186	24.474	32.841	31.516	1.00	50.04	C
ATOM	5656	N	PRO	F	187	20.676	36.002	32.905	1.00	42.90	N
ATOM	5657	CA	PRO	F	187	19.878	37.117	32.387	1.00	42.25	C
ATOM	5658	C	PRO	F	187	19.261	36.852	31.009	1.00	41.47	C
ATOM	5659	O	PRO	F	187	19.778	36.048	30.228	1.00	40.21	O
ATOM	5660	CB	PRO	F	187	20.881	38.268	32.368	1.00	42.05	C
ATOM	5661	CG	PRO	F	187	22.173	37.575	32.047	1.00	42.87	C
ATOM	5662	CD	PRO	F	187	22.118	36.317	32.891	1.00	42.21	C
ATOM	5663	N	THR	F	188	18.145	37.522	30.728	1.00	40.55	N
ATOM	5664	CA	THR	F	188	17.483	37.381	29.440	1.00	40.68	C
ATOM	5665	C	THR	F	188	18.042	38.446	28.505	1.00	40.77	C
ATOM	5666	O	THR	F	188	18.683	39.409	28.936	1.00	39.68	O
ATOM	5667	CB	THR	F	188	15.957	37.599	29.524	1.00	40.57	C
ATOM	5668	OG1	THR	F	188	15.692	38.944	29.937	1.00	40.81	O
ATOM	5669	CG2	THR	F	188	15.321	36.621	30.493	1.00	39.87	C
ATOM	5670	N	MET	F	189	17.782	38.272	27.219	1.00	40.70	N
ATOM	5671	CA	MET	F	189	18.267	39.206	26.220	1.00	40.97	C
ATOM	5672	C	MET	F	189	17.187	39.622	25.233	1.00	39.67	C
ATOM	5673	O	MET	F	189	16.418	38.789	24.758	1.00	39.80	O

Table 3

ATOM	5674	CB	MET	F	189	19.424	38.574	25.444	1.00	42.23	C
ATOM	5675	CG	MET	F	189	19.761	39.298	24.151	1.00	44.84	C
ATOM	5676	SD	MET	F	189	21.320	38.752	23.419	1.00	49.58	S
ATOM	5677	CE	MET	F	189	22.406	40.078	24.039	1.00	47.75	C
ATOM	5678	N	ARG	F	190	17.146	40.912	24.922	1.00	37.90	N
ATOM	5679	CA	ARG	F	190	16.190	41.442	23.957	1.00	37.20	C
ATOM	5680	C	ARG	F	190	16.918	42.458	23.076	1.00	35.36	C
ATOM	5681	O	ARG	F	190	17.806	43.176	23.553	1.00	34.22	O
ATOM	5682	CB	ARG	F	190	15.033	42.143	24.661	1.00	38.85	C
ATOM	5683	CG	ARG	F	190	14.391	41.342	25.768	1.00	41.45	C
ATOM	5684	CD	ARG	F	190	13.371	42.202	26.488	1.00	43.93	C
ATOM	5685	NE	ARG	F	190	13.785	43.603	26.530	1.00	45.35	N
ATOM	5686	CZ	ARG	F	190	13.242	44.517	27.324	1.00	46.53	C
ATOM	5687	NH1	ARG	F	190	12.262	44.177	28.152	1.00	47.49	N
ATOM	5688	NH2	ARG	F	190	13.677	45.771	27.295	1.00	47.13	N
ATOM	5689	N	TRP	F	191	16.554	42.516	21.797	1.00	32.45	N
ATOM	5690	CA	TRP	F	191	17.175	43.468	20.881	1.00	30.87	C
ATOM	5691	C	TRP	F	191	16.179	44.513	20.361	1.00	30.74	C
ATOM	5692	O	TRP	F	191	15.050	44.182	19.983	1.00	30.08	O
ATOM	5693	CB	TRP	F	191	17.822	42.747	19.691	1.00	29.23	C
ATOM	5694	CG	TRP	F	191	19.069	41.961	20.031	1.00	27.86	C
ATOM	5695	CD1	TRP	F	191	19.136	40.676	20.505	1.00	28.00	C
ATOM	5696	CD2	TRP	F	191	20.419	42.424	19.945	1.00	26.19	C
ATOM	5697	NE1	TRP	F	191	20.447	40.314	20.716	1.00	26.72	N
ATOM	5698	CE2	TRP	F	191	21.255	41.368	20.378	1.00	26.84	C
ATOM	5699	CE3	TRP	F	191	21.007	43.629	19.542	1.00	26.52	C
ATOM	5700	CZ2	TRP	F	191	22.651	41.484	20.415	1.00	27.25	C
ATOM	5701	CZ3	TRP	F	191	22.393	43.746	19.581	1.00	27.35	C
ATOM	5702	CH2	TRP	F	191	23.200	42.677	20.015	1.00	26.74	C
ATOM	5703	N	LEU	F	192	16.599	45.776	20.357	1.00	29.31	N
ATOM	5704	CA	LEU	F	192	15.753	46.855	19.869	1.00	29.21	C
ATOM	5705	C	LEU	F	192	16.342	47.464	18.597	1.00	29.29	C
ATOM	5706	O	LEU	F	192	17.563	47.476	18.411	1.00	30.46	O
ATOM	5707	CB	LEU	F	192	15.635	47.979	20.913	1.00	28.58	C
ATOM	5708	CG	LEU	F	192	15.310	47.719	22.389	1.00	29.75	C
ATOM	5709	CD1	LEU	F	192	15.487	49.003	23.168	1.00	30.04	C
ATOM	5710	CD2	LEU	F	192	13.895	47.195	22.555	1.00	28.67	C
ATOM	5711	N	LYS	F	193	15.472	47.940	17.712	1.00	28.31	N
ATOM	5712	CA	LYS	F	193	15.902	48.633	16.508	1.00	28.68	C
ATOM	5713	C	LYS	F	193	15.378	50.065	16.685	1.00	29.44	C
ATOM	5714	O	LYS	F	193	14.165	50.283	16.814	1.00	28.28	O
ATOM	5715	CB	LYS	F	193	15.296	48.028	15.243	1.00	28.12	C
ATOM	5716	CG	LYS	F	193	15.691	48.806	13.977	1.00	28.39	C
ATOM	5717	CD	LYS	F	193	15.047	48.252	12.710	1.00	30.20	C
ATOM	5718	CE	LYS	F	193	15.479	49.044	11.469	1.00	31.28	C
ATOM	5719	NZ	LYS	F	193	14.810	48.560	10.212	1.00	31.21	N
ATOM	5720	N	ASN	F	194	16.287	51.035	16.693	1.00	29.56	N
ATOM	5721	CA	ASN	F	194	15.899	52.424	16.883	1.00	30.70	C
ATOM	5722	C	ASN	F	194	15.035	52.598	18.138	1.00	31.61	C
ATOM	5723	O	ASN	F	194	13.974	53.210	18.091	1.00	32.50	O
ATOM	5724	CB	ASN	F	194	15.141	52.947	15.659	1.00	28.93	C
ATOM	5725	CG	ASN	F	194	15.998	52.970	14.409	1.00	28.90	C
ATOM	5726	OD1	ASN	F	194	17.194	53.287	14.464	1.00	26.90	O
ATOM	5727	ND2	ASN	F	194	15.389	52.645	13.266	1.00	27.33	N
ATOM	5728	N	GLY	F	195	15.492	52.028	19.250	1.00	32.59	N
ATOM	5729	CA	GLY	F	195	14.785	52.139	20.518	1.00	32.86	C
ATOM	5730	C	GLY	F	195	13.434	51.455	20.666	1.00	33.71	C
ATOM	5731	O	GLY	F	195	12.741	51.692	21.648	1.00	33.71	O
ATOM	5732	N	LYS	F	196	13.051	50.612	19.712	1.00	34.46	N
ATOM	5733	CA	LYS	F	196	11.759	49.927	19.783	1.00	35.48	C
ATOM	5734	C	LYS	F	196	11.935	48.442	19.500	1.00	35.38	C
ATOM	5735	O	LYS	F	196	12.905	48.042	18.867	1.00	34.41	O
ATOM	5736	CB	LYS	F	196	10.795	50.528	18.749	1.00	36.77	C
ATOM	5737	CG	LYS	F	196	10.686	52.047	18.820	1.00	38.24	C
ATOM	5738	CD	LYS	F	196	10.084	52.649	17.555	1.00	39.91	C
ATOM	5739	CE	LYS	F	196	10.911	52.325	16.318	1.00	40.90	C

Table 3

ATOM	5740	NZ	LYS	F	196	10.542	53.178	15.150	1.00	41.25	
ATOM	5741	N	GLU	F	197	10.991	47.630	19.963	1.00	35.86	N
ATOM	5742	CA	GLU	F	197	11.047	46.194	19.735	1.00	36.04	N
ATOM	5743	C	GLU	F	197	11.352	45.921	18.264	1.00	35.04	C
ATOM	5744	O	GLU	F	197	10.765	46.539	17.372	1.00	33.77	O
ATOM	5745	CB	GLU	F	197	9.718	45.535	20.138	1.00	37.85	O
ATOM	5746	CG	GLU	F	197	9.555	44.092	19.646	1.00	40.50	C
ATOM	5747	CD	GLU	F	197	8.268	43.420	20.142	1.00	42.49	C
ATOM	5748	OE1	GLU	F	197	7.216	44.098	20.218	1.00	43.04	O
ATOM	5749	OE2	GLU	F	197	8.311	42.207	20.437	1.00	42.34	O
ATOM	5750	N	PHE	F	198	12.297	45.013	18.033	1.00	34.31	N
ATOM	5751	CA	PHE	F	198	12.721	44.626	16.695	1.00	33.94	N
ATOM	5752	C	PHE	F	198	11.964	43.334	16.386	1.00	34.49	C
ATOM	5753	O	PHE	F	198	12.159	42.328	17.062	1.00	33.96	O
ATOM	5754	CB	PHE	F	198	14.234	44.373	16.708	1.00	32.03	O
ATOM	5755	CG	PHE	F	198	14.851	44.172	15.345	1.00	30.37	C
ATOM	5756	CD1	PHE	F	198	16.076	43.523	15.223	1.00	29.72	C
ATOM	5757	CD2	PHE	F	198	14.238	44.659	14.195	1.00	29.77	C
ATOM	5758	CE1	PHE	F	198	16.688	43.359	13.965	1.00	29.73	C
ATOM	5759	CE2	PHE	F	198	14.840	44.500	12.936	1.00	30.25	C
ATOM	5760	CZ	PHE	F	198	16.071	43.847	12.828	1.00	28.74	C
ATOM	5761	N	LYS	F	199	11.099	43.372	15.377	1.00	35.60	N
ATOM	5762	CA	LYS	F	199	10.304	42.204	14.994	1.00	36.11	C
ATOM	5763	C	LYS	F	199	10.760	41.601	13.675	1.00	35.77	C
ATOM	5764	O	LYS	F	199	11.331	42.293	12.836	1.00	35.67	O
ATOM	5765	CB	LYS	F	199	8.825	42.584	14.896	1.00	36.91	C
ATOM	5766	CG	LYS	F	199	8.226	43.120	16.196	1.00	38.98	C
ATOM	5767	CD	LYS	F	199	6.748	43.447	16.026	1.00	40.85	C
ATOM	5768	CE	LYS	F	199	6.103	43.833	17.358	1.00	42.06	C
ATOM	5769	NZ	LYS	F	199	4.614	43.950	17.244	1.00	42.75	N
ATOM	5770	N	GLN	F	200	10.490	40.308	13.502	1.00	35.69	N
ATOM	5771	CA	GLN	F	200	10.855	39.582	12.295	1.00	35.41	N
ATOM	5772	C	GLN	F	200	10.372	40.266	11.021	1.00	35.51	C
ATOM	5773	O	GLN	F	200	11.083	40.306	10.027	1.00	35.58	O
ATOM	5774	CB	GLN	F	200	10.288	38.155	12.351	1.00	34.06	C
ATOM	5775	CG	GLN	F	200	10.978	37.228	13.347	1.00	31.65	C
ATOM	5776	CD	GLN	F	200	12.453	37.037	13.039	1.00	29.88	C
ATOM	5777	OE1	GLN	F	200	12.855	37.003	11.878	1.00	29.84	O
ATOM	5778	NE2	GLN	F	200	13.261	36.889	14.080	1.00	29.62	O
ATOM	5779	N	GLU	F	201	9.166	40.821	11.059	1.00	36.04	N
ATOM	5780	CA	GLU	F	201	8.593	41.469	9.887	1.00	36.60	N
ATOM	5781	C	GLU	F	201	9.204	42.833	9.576	1.00	35.96	C
ATOM	5782	O	GLU	F	201	8.845	43.461	8.579	1.00	35.12	O
ATOM	5783	CB	GLU	F	201	7.082	41.619	10.071	1.00	37.56	O
ATOM	5784	CG	GLU	F	201	6.709	42.533	11.220	1.00	41.31	C
ATOM	5785	CD	GLU	F	201	6.054	41.798	12.385	1.00	44.04	C
ATOM	5786	OE1	GLU	F	201	6.638	40.813	12.917	1.00	43.75	C
ATOM	5787	OE2	GLU	F	201	4.945	42.224	12.775	1.00	45.55	O
ATOM	5788	N	HIS	F	202	10.124	43.296	10.420	1.00	35.49	N
ATOM	5789	CA	HIS	F	202	10.751	44.597	10.196	1.00	35.12	N
ATOM	5790	C	HIS	F	202	11.755	44.647	9.038	1.00	34.73	C
ATOM	5791	O	HIS	F	202	12.200	45.730	8.653	1.00	35.10	O
ATOM	5792	CB	HIS	F	202	11.409	45.115	11.481	1.00	35.18	C
ATOM	5793	CG	HIS	F	202	10.434	45.600	12.513	1.00	35.87	C
ATOM	5794	ND1	HIS	F	202	9.222	46.175	12.185	1.00	36.51	C
ATOM	5795	CD2	HIS	F	202	10.504	45.623	13.866	1.00	34.64	N
ATOM	5796	CE1	HIS	F	202	8.590	46.527	13.289	1.00	35.55	C
ATOM	5797	NE2	HIS	F	202	9.348	46.204	14.324	1.00	35.01	C
ATOM	5798	N	ARG	F	203	12.115	43.487	8.488	1.00	33.96	N
ATOM	5799	CA	ARG	F	203	13.035	43.430	7.341	1.00	33.38	N
ATOM	5800	C	ARG	F	203	12.815	42.138	6.550	1.00	33.55	C
ATOM	5801	O	ARG	F	203	12.358	41.135	7.103	1.00	32.74	O
ATOM	5802	CB	ARG	F	203	14.512	43.525	7.795	1.00	30.83	O
ATOM	5803	CG	ARG	F	203	15.093	42.255	8.435	1.00	29.74	C
ATOM	5804	CD	ARG	F	203	16.514	42.509	8.978	1.00	29.31	C
ATOM	5805	NE	ARG	F	203	17.452	42.893	7.923	1.00	26.83	N

Table 3

ATOM	5806	CZ	ARG	F	203	18.149	42.032	7.186	1.00	25.96	C
ATOM	5807	NH1	ARG	F	203	18.030	40.728	7.391	1.00	24.85	N
ATOM	5808	NH2	ARG	F	203	18.945	42.473	6.221	1.00	26.60	N
ATOM	5809	N	ILE	F	204	13.128	42.168	5.257	1.00	34.22	N
ATOM	5810	CA	ILE	F	204	12.976	40.982	4.427	1.00	35.18	C
ATOM	5811	C	ILE	F	204	13.856	39.882	5.023	1.00	35.19	C
ATOM	5812	O	ILE	F	204	15.038	40.109	5.311	1.00	34.84	O
ATOM	5813	CB	ILE	F	204	13.431	41.235	2.976	1.00	35.88	C
ATOM	5814	CG1	ILE	F	204	12.668	42.424	2.379	1.00	36.13	C
ATOM	5815	CG2	ILE	F	204	13.229	39.962	2.149	1.00	36.91	C
ATOM	5816	CD1	ILE	F	204	11.167	42.264	2.392	1.00	36.71	C
ATOM	5817	N	GLY	F	205	13.269	38.705	5.233	1.00	34.69	N
ATOM	5818	CA	GLY	F	205	14.012	37.588	5.793	1.00	34.34	C
ATOM	5819	C	GLY	F	205	14.237	37.647	7.299	1.00	34.39	C
ATOM	5820	O	GLY	F	205	14.865	36.755	7.869	1.00	34.69	O
ATOM	5821	N	GLY	F	206	13.734	38.690	7.952	1.00	32.99	N
ATOM	5822	CA	GLY	F	206	13.901	38.800	9.393	1.00	33.37	C
ATOM	5823	C	GLY	F	206	15.328	38.694	9.924	1.00	33.23	C
ATOM	5824	O	GLY	F	206	16.289	39.114	9.276	1.00	32.48	O
ATOM	5825	N	TYR	F	207	15.472	38.136	11.117	1.00	32.64	N
ATOM	5826	CA	TYR	F	207	16.790	37.986	11.711	1.00	33.77	C
ATOM	5827	C	TYR	F	207	16.896	36.712	12.548	1.00	34.46	C
ATOM	5828	O	TYR	F	207	15.899	36.020	12.764	1.00	34.79	O
ATOM	5829	CB	TYR	F	207	17.118	39.209	12.583	1.00	33.55	C
ATOM	5830	CG	TYR	F	207	16.153	39.441	13.732	1.00	32.75	C
ATOM	5831	CD1	TYR	F	207	15.015	40.246	13.571	1.00	32.44	C
ATOM	5832	CD2	TYR	F	207	16.374	38.850	14.979	1.00	33.03	C
ATOM	5833	CE1	TYR	F	207	14.119	40.460	14.628	1.00	32.42	C
ATOM	5834	CE2	TYR	F	207	15.477	39.052	16.054	1.00	32.73	C
ATOM	5835	CZ	TYR	F	207	14.355	39.856	15.865	1.00	33.10	C
ATOM	5836	OH	TYR	F	207	13.462	40.028	16.896	1.00	31.83	O
ATOM	5837	N	LYS	F	208	18.107	36.419	13.019	1.00	34.55	N
ATOM	5838	CA	LYS	F	208	18.361	35.237	13.840	1.00	35.20	C
ATOM	5839	C	LYS	F	208	19.072	35.628	15.129	1.00	37.32	C
ATOM	5840	O	LYS	F	208	19.902	36.539	15.139	1.00	37.39	O
ATOM	5841	CB	LYS	F	208	19.236	34.236	13.083	1.00	33.89	C
ATOM	5842	CG	LYS	F	208	18.622	33.695	11.804	1.00	33.01	C
ATOM	5843	CD	LYS	F	208	19.638	32.897	11.002	1.00	31.73	C
ATOM	5844	CE	LYS	F	208	19.003	32.362	9.729	1.00	31.93	C
ATOM	5845	NZ	LYS	F	208	19.951	31.576	8.907	1.00	31.97	N
ATOM	5846	N	VAL	F	209	18.742	34.941	16.216	1.00	39.09	N
ATOM	5847	CA	VAL	F	209	19.364	35.204	17.507	1.00	41.34	C
ATOM	5848	C	VAL	F	209	19.850	33.902	18.134	1.00	43.43	C
ATOM	5849	O	VAL	F	209	19.107	32.916	18.204	1.00	44.61	O
ATOM	5850	CB	VAL	F	209	18.384	35.897	18.489	1.00	40.99	C
ATOM	5851	CG1	VAL	F	209	18.955	35.882	19.897	1.00	41.66	C
ATOM	5852	CG2	VAL	F	209	18.143	37.332	18.060	1.00	40.70	C
ATOM	5853	N	ARG	F	210	21.105	33.897	18.572	1.00	44.15	N
ATOM	5854	CA	ARG	F	210	21.688	32.727	19.216	1.00	45.63	C
ATOM	5855	C	ARG	F	210	21.983	33.107	20.671	1.00	46.74	C
ATOM	5856	O	ARG	F	210	23.029	33.684	20.979	1.00	46.52	O
ATOM	5857	CB	ARG	F	210	22.972	32.302	18.499	1.00	45.37	C
ATOM	5858	N	ASN	F	211	21.044	32.794	21.560	1.00	48.22	N
ATOM	5859	CA	ASN	F	211	21.191	33.119	22.974	1.00	49.06	C
ATOM	5860	C	ASN	F	211	22.512	32.641	23.558	1.00	48.57	C
ATOM	5861	O	ASN	F	211	23.121	33.336	24.370	1.00	48.61	O
ATOM	5862	CB	ASN	F	211	20.019	32.552	23.774	1.00	50.40	C
ATOM	5863	CG	ASN	F	211	18.688	33.151	23.348	1.00	52.24	C
ATOM	5864	OD1	ASN	F	211	18.489	34.370	23.409	1.00	53.07	O
ATOM	5865	ND2	ASN	F	211	17.773	32.296	22.906	1.00	52.36	N
ATOM	5866	N	GLN	F	212	22.960	31.463	23.136	1.00	47.95	N
ATOM	5867	CA	GLN	F	212	24.222	30.906	23.622	1.00	47.07	C
ATOM	5868	C	GLN	F	212	25.408	31.839	23.341	1.00	46.07	C
ATOM	5869	O	GLN	F	212	26.396	31.832	24.076	1.00	46.29	O
ATOM	5870	CB	GLN	F	212	24.479	29.536	22.981	1.00	47.25	C
ATOM	5871	N	HIS	F	213	25.312	32.638	22.279	1.00	43.99	N

Table 3

ATOM	5872	CA	HIS	F	213	26.384	33.569	21.932	1.00	41.91	C
ATOM	5873	C	HIS	F	213	26.008	35.040	22.164	1.00	40.31	C
ATOM	5874	O	HIS	F	213	26.784	35.938	21.833	1.00	39.47	O
ATOM	5875	CB	HIS	F	213	26.796	33.384	20.467	1.00	42.21	C
ATOM	5876	N	TRP	F	214	24.825	35.280	22.733	1.00	38.43	N
ATOM	5877	CA	TRP	F	214	24.343	36.647	22.988	1.00	36.90	C
ATOM	5878	C	TRP	F	214	24.485	37.477	21.710	1.00	35.65	C
ATOM	5879	O	TRP	F	214	24.998	38.596	21.732	1.00	34.83	O
ATOM	5880	CB	TRP	F	214	25.156	37.310	24.117	1.00	37.32	C
ATOM	5881	CG	TRP	F	214	25.253	36.467	25.357	1.00	38.36	C
ATOM	5882	CD1	TRP	F	214	26.254	35.591	25.680	1.00	39.05	C
ATOM	5883	CD2	TRP	F	214	24.268	36.348	26.391	1.00	38.90	C
ATOM	5884	NE1	TRP	F	214	25.947	34.929	26.846	1.00	38.91	N
ATOM	5885	CE2	TRP	F	214	24.735	35.374	27.304	1.00	39.07	C
ATOM	5886	CE3	TRP	F	214	23.032	36.968	26.635	1.00	39.11	C
ATOM	5887	CZ2	TRP	F	214	24.011	35.005	28.443	1.00	39.13	C
ATOM	5888	CZ3	TRP	F	214	22.310	36.600	27.769	1.00	39.21	C
ATOM	5889	CH2	TRP	F	214	22.803	35.627	28.658	1.00	39.44	C
ATOM	5890	N	SER	F	215	24.018	36.929	20.594	1.00	34.42	N
ATOM	5891	CA	SER	F	215	24.159	37.615	19.321	1.00	33.05	C
ATOM	5892	C	SER	F	215	22.886	37.824	18.506	1.00	32.30	C
ATOM	5893	O	SER	F	215	21.909	37.071	18.633	1.00	31.69	O
ATOM	5894	CB	SER	F	215	25.167	36.853	18.457	1.00	34.47	C
ATOM	5895	OG	SER	F	215	24.645	35.578	18.095	1.00	34.50	O
ATOM	5896	N	LEU	F	216	22.936	38.850	17.653	1.00	30.67	N
ATOM	5897	CA	LEU	F	216	21.854	39.202	16.735	1.00	29.22	C
ATOM	5898	C	LEU	F	216	22.477	39.122	15.347	1.00	28.34	C
ATOM	5899	O	LEU	F	216	23.507	39.757	15.086	1.00	27.30	O
ATOM	5900	CB	LEU	F	216	21.358	40.633	16.967	1.00	28.18	C
ATOM	5901	CG	LEU	F	216	20.462	41.142	15.821	1.00	28.87	C
ATOM	5902	CD1	LEU	F	216	19.159	40.357	15.846	1.00	29.36	C
ATOM	5903	CD2	LEU	F	216	20.176	42.639	15.964	1.00	28.49	C
ATOM	5904	N	ILE	F	217	21.853	38.357	14.456	1.00	28.20	N
ATOM	5905	CA	ILE	F	217	22.364	38.187	13.098	1.00	28.31	C
ATOM	5906	C	ILE	F	217	21.402	38.618	12.000	1.00	28.13	C
ATOM	5907	O	ILE	F	217	20.230	38.227	11.999	1.00	27.90	O
ATOM	5908	CB	ILE	F	217	22.779	36.718	12.872	1.00	28.75	C
ATOM	5909	CG1	ILE	F	217	24.022	36.418	13.716	1.00	30.55	C
ATOM	5910	CG2	ILE	F	217	23.053	36.452	11.397	1.00	28.99	C
ATOM	5911	CD1	ILE	F	217	24.513	34.974	13.624	1.00	32.18	C
ATOM	5912	N	MET	F	218	21.909	39.432	11.074	1.00	27.45	N
ATOM	5913	CA	MET	F	218	21.129	39.915	9.933	1.00	29.12	C
ATOM	5914	C	MET	F	218	21.899	39.570	8.646	1.00	29.98	C
ATOM	5915	O	MET	F	218	23.030	40.027	8.436	1.00	29.81	O
ATOM	5916	CB	MET	F	218	20.905	41.434	10.047	1.00	29.43	C
ATOM	5917	CG	MET	F	218	19.911	41.835	11.138	1.00	28.75	C
ATOM	5918	SD	MET	F	218	19.910	43.607	11.546	1.00	29.55	S
ATOM	5919	CE	MET	F	218	19.497	44.305	10.031	1.00	29.23	C
ATOM	5920	N	GLU	F	219	21.285	38.752	7.795	1.00	29.80	N
ATOM	5921	CA	GLU	F	219	21.907	38.325	6.542	1.00	29.89	C
ATOM	5922	C	GLU	F	219	21.525	39.213	5.365	1.00	29.76	C
ATOM	5923	O	GLU	F	219	20.452	39.815	5.360	1.00	29.81	O
ATOM	5924	CB	GLU	F	219	21.512	36.872	6.259	1.00	30.00	C
ATOM	5925	CG	GLU	F	219	21.882	35.928	7.401	1.00	30.20	C
ATOM	5926	CD	GLU	F	219	21.026	34.680	7.437	1.00	30.77	C
ATOM	5927	OE1	GLU	F	219	19.794	34.814	7.316	1.00	31.01	O
ATOM	5928	OE2	GLU	F	219	21.581	33.571	7.598	1.00	31.65	O
ATOM	5929	N	SER	F	220	22.420	39.301	4.383	1.00	29.62	N
ATOM	5930	CA	SER	F	220	22.210	40.096	3.175	1.00	29.82	C
ATOM	5931	C	SER	F	220	21.701	41.506	3.441	1.00	29.76	C
ATOM	5932	O	SER	F	220	20.651	41.897	2.921	1.00	29.19	O
ATOM	5933	CB	SER	F	220	21.219	39.388	2.240	1.00	30.67	C
ATOM	5934	OG	SER	F	220	21.669	38.089	1.907	1.00	31.43	O
ATOM	5935	N	VAL	F	221	22.451	42.283	4.217	1.00	28.67	N
ATOM	5936	CA	VAL	F	221	22.021	43.637	4.541	1.00	28.32	C
ATOM	5937	C	VAL	F	221	21.880	44.555	3.323	1.00	29.51	C

Table 3

ATOM	5938	O	VAL	F	221	22.542	44.370	2.293	1.00	29.53	O
ATOM	5939	CB	VAL	F	221	22.971	44.284	5.594	1.00	28.01	C
ATOM	5940	CG1	VAL	F	221	23.139	43.337	6.781	1.00	26.11	C
ATOM	5941	CG2	VAL	F	221	24.324	44.609	4.983	1.00	26.82	C
ATOM	5942	N	VAL	F	222	20.988	45.533	3.449	1.00	29.96	N
ATOM	5943	CA	VAL	F	222	20.716	46.507	2.404	1.00	31.14	C
ATOM	5944	C	VAL	F	222	20.671	47.892	3.056	1.00	32.51	C
ATOM	5945	O	VAL	F	222	20.606	48.007	4.281	1.00	32.13	O
ATOM	5946	CB	VAL	F	222	19.341	46.236	1.704	1.00	31.92	C
ATOM	5947	CG1	VAL	F	222	19.393	44.934	0.889	1.00	32.22	C
ATOM	5948	CG2	VAL	F	222	18.229	46.149	2.749	1.00	30.96	C
ATOM	5949	N	PRO	F	223	20.717	48.961	2.242	1.00	33.33	N
ATOM	5950	CA	PRO	F	223	20.678	50.337	2.744	1.00	33.05	C
ATOM	5951	C	PRO	F	223	19.621	50.612	3.808	1.00	32.75	C
ATOM	5952	O	PRO	F	223	19.888	51.306	4.779	1.00	31.69	O
ATOM	5953	CB	PRO	F	223	20.449	51.149	1.472	1.00	32.99	C
ATOM	5954	CG	PRO	F	223	21.301	50.414	0.489	1.00	33.35	C
ATOM	5955	CD	PRO	F	223	20.963	48.949	0.786	1.00	33.24	C
ATOM	5956	N	SER	F	224	18.428	50.051	3.636	1.00	32.51	N
ATOM	5957	CA	SER	F	224	17.348	50.278	4.584	1.00	31.69	C
ATOM	5958	C	SER	F	224	17.599	49.727	5.999	1.00	31.73	C
ATOM	5959	O	SER	F	224	16.884	50.077	6.937	1.00	31.16	O
ATOM	5960	CB	SER	F	224	16.057	49.697	4.013	1.00	31.66	C
ATOM	5961	OG	SER	F	224	16.199	48.307	3.774	1.00	32.99	O
ATOM	5962	N	ASP	F	225	18.604	48.867	6.160	1.00	31.38	N
ATOM	5963	CA	ASP	F	225	18.912	48.311	7.484	1.00	30.26	C
ATOM	5964	C	ASP	F	225	19.669	49.309	8.378	1.00	30.11	C
ATOM	5965	O	ASP	F	225	19.874	49.068	9.570	1.00	28.77	O
ATOM	5966	CB	ASP	F	225	19.741	47.028	7.364	1.00	29.82	C
ATOM	5967	CG	ASP	F	225	18.952	45.864	6.793	1.00	29.68	C
ATOM	5968	OD1	ASP	F	225	17.802	45.623	7.242	1.00	28.36	O
ATOM	5969	OD2	ASP	F	225	19.500	45.174	5.909	1.00	27.10	O
ATOM	5970	N	LYS	F	226	20.089	50.429	7.797	1.00	30.34	N
ATOM	5971	CA	LYS	F	226	20.809	51.438	8.566	1.00	30.46	C
ATOM	5972	C	LYS	F	226	19.980	51.868	9.778	1.00	30.07	C
ATOM	5973	O	LYS	F	226	18.763	52.049	9.667	1.00	29.46	O
ATOM	5974	CB	LYS	F	226	21.134	52.656	7.691	1.00	31.03	C
ATOM	5975	CG	LYS	F	226	21.782	53.802	8.481	1.00	32.45	C
ATOM	5976	CD	LYS	F	226	22.034	55.040	7.619	1.00	33.36	C
ATOM	5977	CE	LYS	F	226	22.717	56.153	8.434	1.00	34.79	C
ATOM	5978	NZ	LYS	F	226	23.090	57.326	7.587	1.00	35.90	N
ATOM	5979	N	GLY	F	227	20.644	52.018	10.928	1.00	28.53	N
ATOM	5980	CA	GLY	F	227	19.955	52.421	12.142	1.00	28.88	C
ATOM	5981	C	GLY	F	227	20.679	51.982	13.403	1.00	29.17	C
ATOM	5982	O	GLY	F	227	21.838	51.556	13.346	1.00	28.63	O
ATOM	5983	N	ASN	F	228	20.012	52.102	14.546	1.00	28.73	N
ATOM	5984	CA	ASN	F	228	20.608	51.697	15.815	1.00	29.18	C
ATOM	5985	C	ASN	F	228	20.029	50.382	16.314	1.00	28.27	C
ATOM	5986	O	ASN	F	228	18.821	50.157	16.229	1.00	28.24	O
ATOM	5987	CB	ASN	F	228	20.386	52.755	16.888	1.00	31.52	C
ATOM	5988	CG	ASN	F	228	20.888	54.112	16.469	1.00	33.14	C
ATOM	5989	OD1	ASN	F	228	21.966	54.241	15.897	1.00	34.19	O
ATOM	5990	ND2	ASN	F	228	20.108	55.138	16.760	1.00	34.39	O
ATOM	5991	N	TYR	F	229	20.902	49.521	16.832	1.00	26.46	N
ATOM	5992	CA	TYR	F	229	20.502	48.229	17.374	1.00	25.52	C
ATOM	5993	C	TYR	F	229	21.014	48.118	18.801	1.00	25.73	C
ATOM	5994	O	TYR	F	229	22.227	48.156	19.062	1.00	25.37	O
ATOM	5995	CB	TYR	F	229	21.034	47.088	16.505	1.00	23.62	C
ATOM	5996	CG	TYR	F	229	20.487	47.141	15.104	1.00	24.17	C
ATOM	5997	CD1	TYR	F	229	21.007	48.028	14.167	1.00	24.31	C
ATOM	5998	CD2	TYR	F	229	19.383	46.368	14.735	1.00	24.16	C
ATOM	5999	CE1	TYR	F	229	20.429	48.154	12.901	1.00	25.39	C
ATOM	6000	CE2	TYR	F	229	18.811	46.482	13.488	1.00	22.86	C
ATOM	6001	CZ	TYR	F	229	19.325	47.374	12.576	1.00	24.60	C
ATOM	6002	OH	TYR	F	229	18.706	47.529	11.356	1.00	26.12	O
ATOM	6003	N	THR	F	230	20.069	47.979	19.724	1.00	25.46	N

Table 3

ATOM	6004	CA	THR	F	230	20.374	47.917	21.148	1.00	24.62	C
ATOM	6005	C	THR	F	230	20.056	46.583	21.807	1.00	25.10	C
ATOM	6006	O	THR	F	230	18.980	46.005	21.613	1.00	24.11	O
ATOM	6007	CB	THR	F	230	19.587	49.004	21.896	1.00	23.96	C
ATOM	6008	OG1	THR	F	230	19.859	50.274	21.289	1.00	23.10	C
ATOM	6009	CG2	THR	F	230	19.961	49.021	23.373	1.00	22.18	O
ATOM	6010	N	CYS	F	231	21.004	46.099	22.598	1.00	25.89	N
ATOM	6011	CA	CYS	F	231	20.822	44.855	23.315	1.00	26.87	C
ATOM	6012	C	CYS	F	231	20.512	45.213	24.771	1.00	27.21	C
ATOM	6013	O	CYS	F	231	21.214	46.020	25.370	1.00	26.18	O
ATOM	6014	CB	CYS	F	231	22.099	44.007	23.237	1.00	27.34	C
ATOM	6015	SG	CYS	F	231	23.556	44.785	24.032	1.00	27.77	S
ATOM	6016	N	VAL	F	232	19.443	44.631	25.315	1.00	27.93	N
ATOM	6017	CA	VAL	F	232	19.050	44.853	26.705	1.00	29.90	C
ATOM	6018	C	VAL	F	232	19.155	43.504	27.432	1.00	30.42	C
ATOM	6019	O	VAL	F	232	18.573	42.517	27.006	1.00	31.57	O
ATOM	6020	CB	VAL	F	232	17.609	45.396	26.778	1.00	30.35	C
ATOM	6021	CG1	VAL	F	232	17.246	45.772	28.211	1.00	29.59	C
ATOM	6022	CG2	VAL	F	232	17.482	46.603	25.853	1.00	29.86	C
ATOM	6023	N	VAL	F	233	19.921	43.464	28.516	1.00	31.25	N
ATOM	6024	CA	VAL	F	233	20.130	42.231	29.269	1.00	32.28	C
ATOM	6025	C	VAL	F	233	19.688	42.432	30.716	1.00	32.94	C
ATOM	6026	O	VAL	F	233	20.094	43.403	31.363	1.00	32.94	O
ATOM	6027	CB	VAL	F	233	21.624	41.825	29.239	1.00	31.65	C
ATOM	6028	CG1	VAL	F	233	21.830	40.525	29.969	1.00	33.89	C
ATOM	6029	CG2	VAL	F	233	22.088	41.687	27.817	1.00	33.22	C
ATOM	6030	N	GLU	F	234	18.879	41.510	31.236	1.00	32.73	N
ATOM	6031	CA	GLU	F	234	18.375	41.667	32.590	1.00	34.27	C
ATOM	6032	C	GLU	F	234	18.012	40.423	33.407	1.00	34.49	C
ATOM	6033	O	GLU	F	234	17.763	39.344	32.865	1.00	34.80	O
ATOM	6034	CB	GLU	F	234	17.139	42.573	32.539	1.00	34.06	C
ATOM	6035	N	ASN	F	235	18.003	40.607	34.725	1.00	35.03	N
ATOM	6036	CA	ASN	F	235	17.590	39.585	35.690	1.00	35.08	C
ATOM	6037	C	ASN	F	235	17.034	40.378	36.868	1.00	35.26	C
ATOM	6038	O	ASN	F	235	16.921	41.603	36.781	1.00	34.94	O
ATOM	6039	CB	ASN	F	235	18.734	38.635	36.108	1.00	34.70	C
ATOM	6040	CG	ASN	F	235	19.857	39.323	36.869	1.00	35.25	C
ATOM	6041	OD1	ASN	F	235	19.681	40.395	37.436	1.00	35.24	O
ATOM	6042	ND2	ASN	F	235	21.019	38.678	36.909	1.00	35.44	N
ATOM	6043	N	GLU	F	236	16.679	39.700	37.952	1.00	36.51	N
ATOM	6044	CA	GLU	F	236	16.100	40.364	39.123	1.00	37.07	C
ATOM	6045	C	GLU	F	236	16.963	41.442	39.798	1.00	37.35	C
ATOM	6046	O	GLU	F	236	16.432	42.300	40.503	1.00	37.63	O
ATOM	6047	CB	GLU	F	236	15.704	39.305	40.162	1.00	37.52	C
ATOM	6048	N	TYR	F	237	18.276	41.407	39.578	1.00	37.29	N
ATOM	6049	CA	TYR	F	237	19.180	42.367	40.215	1.00	37.37	C
ATOM	6050	C	TYR	F	237	19.685	43.499	39.317	1.00	36.07	C
ATOM	6051	O	TYR	F	237	20.510	44.312	39.737	1.00	35.50	O
ATOM	6052	CB	TYR	F	237	20.362	41.603	40.822	1.00	39.38	C
ATOM	6053	CG	TYR	F	237	19.925	40.411	41.654	1.00	41.87	C
ATOM	6054	CD1	TYR	F	237	20.347	39.114	41.334	1.00	42.98	C
ATOM	6055	CD2	TYR	F	237	19.066	40.574	42.738	1.00	42.55	C
ATOM	6056	CE1	TYR	F	237	19.920	38.010	42.075	1.00	44.44	C
ATOM	6057	CE2	TYR	F	237	18.633	39.484	43.482	1.00	44.45	C
ATOM	6058	CZ	TYR	F	237	19.062	38.205	43.146	1.00	45.27	C
ATOM	6059	OH	TYR	F	237	18.618	37.126	43.877	1.00	47.09	O
ATOM	6060	N	GLY	F	238	19.202	43.563	38.082	1.00	34.94	N
ATOM	6061	CA	GLY	F	238	19.656	44.642	37.223	1.00	34.17	C
ATOM	6062	C	GLY	F	238	19.327	44.554	35.746	1.00	33.32	C
ATOM	6063	O	GLY	F	238	18.889	43.521	35.243	1.00	32.51	O
ATOM	6064	N	SER	F	239	19.543	45.669	35.058	1.00	32.77	N
ATOM	6065	CA	SER	F	239	19.303	45.767	33.628	1.00	32.73	C
ATOM	6066	C	SER	F	239	20.334	46.705	33.004	1.00	31.60	C
ATOM	6067	O	SER	F	239	20.501	47.836	33.457	1.00	31.83	O
ATOM	6068	CB	SER	F	239	17.885	46.290	33.362	1.00	32.31	C
ATOM	6069	OG	SER	F	239	17.611	46.293	31.973	1.00	34.81	O

Table 3

ATOM	6070	N	ILE	F	240	21.009	46.234	31.958	1.00	30.55	N
ATOM	6071	CA	ILE	F	240	22.032	47.020	31.277	1.00	29.37	C
ATOM	6072	C	ILE	F	240	21.857	46.909	29.766	1.00	28.68	C
ATOM	6073	O	ILE	F	240	21.298	45.928	29.274	1.00	29.57	O
ATOM	6074	CB	ILE	F	240	23.441	46.524	31.671	1.00	28.30	C
ATOM	6075	CG1	ILE	F	240	23.599	45.056	31.276	1.00	29.24	C
ATOM	6076	CG2	ILE	F	240	23.632	46.649	33.186	1.00	26.87	C
ATOM	6077	CD1	ILE	F	240	25.001	44.480	31.564	1.00	30.18	C
ATOM	6078	N	ASN	F	241	22.330	47.913	29.031	1.00	27.35	N
ATOM	6079	CA	ASN	F	241	22.214	47.917	27.579	1.00	25.92	C
ATOM	6080	C	ASN	F	241	23.425	48.525	26.885	1.00	26.07	C
ATOM	6081	O	ASN	F	241	24.235	49.227	27.503	1.00	24.87	O
ATOM	6082	CB	ASN	F	241	20.957	48.672	27.141	1.00	24.51	C
ATOM	6083	CG	ASN	F	241	20.884	50.075	27.724	1.00	25.67	C
ATOM	6084	OD1	ASN	F	241	20.311	50.290	28.796	1.00	28.27	O
ATOM	6085	ND2	ASN	F	241	21.488	51.033	27.036	1.00	24.93	N
ATOM	6086	N	HIS	F	242	23.527	48.243	25.589	1.00	25.58	N
ATOM	6087	CA	HIS	F	242	24.613	48.730	24.747	1.00	25.88	C
ATOM	6088	C	HIS	F	242	24.040	48.965	23.356	1.00	26.14	C
ATOM	6089	O	HIS	F	242	23.170	48.213	22.907	1.00	25.21	O
ATOM	6090	CB	HIS	F	242	25.726	47.695	24.656	1.00	26.14	C
ATOM	6091	CG	HIS	F	242	26.838	48.095	23.741	1.00	26.54	C
ATOM	6092	ND1	HIS	F	242	27.732	49.097	24.052	1.00	26.56	N
ATOM	6093	CD2	HIS	F	242	27.196	47.632	22.521	1.00	27.55	C
ATOM	6094	CE1	HIS	F	242	28.598	49.231	23.063	1.00	28.63	C
ATOM	6095	NE2	HIS	F	242	28.296	48.353	22.122	1.00	28.19	N
ATOM	6096	N	THR	F	243	24.542	49.980	22.663	1.00	25.54	N
ATOM	6097	CA	THR	F	243	24.025	50.303	21.342	1.00	26.51	C
ATOM	6098	C	THR	F	243	25.042	50.299	20.210	1.00	27.85	C
ATOM	6099	O	THR	F	243	26.136	50.842	20.343	1.00	28.40	O
ATOM	6100	CB	THR	F	243	23.316	51.690	21.356	1.00	26.25	C
ATOM	6101	OG1	THR	F	243	22.214	51.657	22.273	1.00	24.68	O
ATOM	6102	CG2	THR	F	243	22.793	52.048	19.958	1.00	26.04	C
ATOM	6103	N	TYR	F	244	24.664	49.664	19.103	1.00	28.22	N
ATOM	6104	CA	TYR	F	244	25.496	49.602	17.909	1.00	29.85	C
ATOM	6105	C	TYR	F	244	24.807	50.413	16.816	1.00	31.08	C
ATOM	6106	O	TYR	F	244	23.583	50.536	16.800	1.00	30.67	O
ATOM	6107	CB	TYR	F	244	25.659	48.168	17.398	1.00	29.24	C
ATOM	6108	CG	TYR	F	244	26.503	47.274	18.264	1.00	29.23	C
ATOM	6109	CD1	TYR	F	244	25.934	46.213	18.969	1.00	28.57	C
ATOM	6110	CD2	TYR	F	244	27.882	47.476	18.370	1.00	28.39	C
ATOM	6111	CE1	TYR	F	244	26.715	45.370	19.754	1.00	28.64	C
ATOM	6112	CE2	TYR	F	244	28.669	46.644	19.158	1.00	29.07	C
ATOM	6113	CZ	TYR	F	244	28.081	45.593	19.846	1.00	28.99	C
ATOM	6114	OH	TYR	F	244	28.859	44.775	20.630	1.00	30.62	O
ATOM	6115	N	HIS	F	245	25.601	50.973	15.913	1.00	32.15	N
ATOM	6116	CA	HIS	F	245	25.069	51.741	14.797	1.00	33.59	C
ATOM	6117	C	HIS	F	245	25.457	50.986	13.534	1.00	33.68	C
ATOM	6118	O	HIS	F	245	26.611	50.581	13.387	1.00	33.99	O
ATOM	6119	CB	HIS	F	245	25.674	53.145	14.786	1.00	34.56	C
ATOM	6120	CG	HIS	F	245	25.480	53.882	16.077	1.00	37.38	C
ATOM	6121	ND1	HIS	F	245	24.287	54.476	16.421	1.00	37.28	N
ATOM	6122	CD2	HIS	F	245	26.310	54.066	17.132	1.00	39.21	C
ATOM	6123	CE1	HIS	F	245	24.385	54.991	17.636	1.00	37.94	C
ATOM	6124	NE2	HIS	F	245	25.606	54.753	18.090	1.00	38.49	N
ATOM	6125	N	LEU	F	246	24.499	50.777	12.638	1.00	33.16	N
ATOM	6126	CA	LEU	F	246	24.778	50.063	11.399	1.00	33.00	C
ATOM	6127	C	LEU	F	246	24.638	50.957	10.174	1.00	34.03	C
ATOM	6128	O	LEU	F	246	23.694	51.746	10.065	1.00	34.12	O
ATOM	6129	CB	LEU	F	246	23.842	48.854	11.246	1.00	31.62	C
ATOM	6130	CG	LEU	F	246	23.884	48.127	9.894	1.00	31.04	C
ATOM	6131	CD1	LEU	F	246	25.269	47.475	9.679	1.00	30.18	C
ATOM	6132	CD2	LEU	F	246	22.789	47.071	9.849	1.00	29.52	C
ATOM	6133	N	ASP	F	247	25.592	50.834	9.257	1.00	34.91	N
ATOM	6134	CA	ASP	F	247	25.560	51.598	8.018	1.00	36.30	C
ATOM	6135	C	ASP	F	247	25.917	50.642	6.887	1.00	36.31	C

Table 3

ATOM	6136	O	ASP	F	247	26.820	49.813	7.036	1.00	36.41	O
ATOM	6137	CB	ASP	F	247	26.540	52.777	8.075	1.00	36.95	C
ATOM	6138	CG	ASP	F	247	26.118	53.919	7.161	1.00	38.99	C
ATOM	6139	OD1	ASP	F	247	26.603	55.059	7.335	1.00	39.74	O
ATOM	6140	OD2	ASP	F	247	25.288	53.672	6.262	1.00	40.23	O
ATOM	6141	N	VAL	F	248	25.196	50.740	5.771	1.00	36.55	N
ATOM	6142	CA	VAL	F	248	25.430	49.864	4.633	1.00	36.46	C
ATOM	6143	C	VAL	F	248	25.844	50.650	3.400	1.00	36.82	C
ATOM	6144	O	VAL	F	248	25.231	51.664	3.070	1.00	37.84	O
ATOM	6145	CB	VAL	F	248	24.167	49.053	4.312	1.00	36.17	C
ATOM	6146	CG1	VAL	F	248	24.465	48.007	3.249	1.00	34.16	C
ATOM	6147	CG2	VAL	F	248	23.643	48.411	5.592	1.00	35.63	C
ATOM	6148	N	VAL	F	249	26.889	50.171	2.726	1.00	36.57	N
ATOM	6149	CA	VAL	F	249	27.415	50.820	1.527	1.00	36.43	C
ATOM	6150	C	VAL	F	249	27.369	49.875	0.325	1.00	36.89	C
ATOM	6151	O	VAL	F	249	27.897	48.761	0.371	1.00	36.55	O
ATOM	6152	CB	VAL	F	249	28.898	51.264	1.735	1.00	36.50	C
ATOM	6153	CG1	VAL	F	249	29.419	51.953	0.480	1.00	35.80	C
ATOM	6154	CG2	VAL	F	249	29.013	52.186	2.933	1.00	35.90	C
ATOM	6155	N	GLU	F	250	26.750	50.323	-0.756	1.00	36.94	N
ATOM	6156	CA	GLU	F	250	26.664	49.503	-1.953	1.00	36.91	C
ATOM	6157	C	GLU	F	250	27.923	49.681	-2.792	1.00	35.51	C
ATOM	6158	O	GLU	F	250	28.315	50.796	-3.100	1.00	35.05	O
ATOM	6159	CB	GLU	F	250	25.419	49.902	-2.747	1.00	39.01	C
ATOM	6160	CG	GLU	F	250	24.131	49.722	-1.952	1.00	42.23	C
ATOM	6161	CD	GLU	F	250	22.889	50.095	-2.742	1.00	43.94	C
ATOM	6162	OE1	GLU	F	250	22.643	51.304	-2.949	1.00	44.73	O
ATOM	6163	OE2	GLU	F	250	22.165	49.169	-3.159	1.00	44.81	O
ATOM	6164	N	ARG	F	251	28.561	48.573	-3.149	1.00	34.53	N
ATOM	6165	CA	ARG	F	251	29.776	48.607	-3.948	1.00	33.88	C
ATOM	6166	C	ARG	F	251	29.417	48.222	-5.380	1.00	35.00	C
ATOM	6167	O	ARG	F	251	28.527	47.416	-5.595	1.00	34.89	O
ATOM	6168	CB	ARG	F	251	30.804	47.628	-3.379	1.00	31.60	C
ATOM	6169	CG	ARG	F	251	31.185	47.893	-1.923	1.00	28.57	C
ATOM	6170	CD	ARG	F	251	31.457	49.373	-1.673	1.00	26.81	C
ATOM	6171	NE	ARG	F	251	32.497	49.913	-2.550	1.00	24.43	N
ATOM	6172	CZ	ARG	F	251	33.800	49.670	-2.431	1.00	22.96	C
ATOM	6173	NH1	ARG	F	251	34.269	48.885	-1.463	1.00	24.68	N
ATOM	6174	NH2	ARG	F	251	34.642	50.229	-3.280	1.00	24.66	N
ATOM	6175	N	SER	F	252	30.098	48.796	-6.362	1.00	35.23	N
ATOM	6176	CA	SER	F	252	29.834	48.520	-7.772	1.00	36.16	C
ATOM	6177	C	SER	F	252	31.103	48.052	-8.482	1.00	36.13	C
ATOM	6178	O	SER	F	252	31.930	48.859	-8.882	1.00	36.17	O
ATOM	6179	CB	SER	F	252	29.299	49.794	-8.433	1.00	36.21	C
ATOM	6180	OG	SER	F	252	29.342	49.697	-9.841	1.00	37.53	O
ATOM	6181	N	PRO	F	253	31.269	46.739	-8.660	1.00	37.26	N
ATOM	6182	CA	PRO	F	253	32.471	46.219	-9.326	1.00	37.37	C
ATOM	6183	C	PRO	F	253	32.490	46.310	-10.859	1.00	37.89	C
ATOM	6184	O	PRO	F	253	32.809	45.334	-11.539	1.00	39.08	O
ATOM	6185	CB	PRO	F	253	32.539	44.784	-8.820	1.00	38.19	C
ATOM	6186	CG	PRO	F	253	31.080	44.407	-8.743	1.00	37.95	C
ATOM	6187	CD	PRO	F	253	30.429	45.643	-8.134	1.00	37.11	C
ATOM	6188	N	HIS	F	254	32.153	47.479	-11.400	1.00	37.46	N
ATOM	6189	CA	HIS	F	254	32.164	47.669	-12.847	1.00	37.94	C
ATOM	6190	C	HIS	F	254	33.273	48.623	-13.293	1.00	36.74	C
ATOM	6191	O	HIS	F	254	33.769	49.419	-12.504	1.00	36.07	O
ATOM	6192	CB	HIS	F	254	30.828	48.236	-13.339	1.00	39.88	C
ATOM	6193	CG	HIS	F	254	29.663	47.320	-13.131	1.00	43.40	C
ATOM	6194	ND1	HIS	F	254	28.911	47.319	-11.973	1.00	45.10	N
ATOM	6195	CD2	HIS	F	254	29.129	46.364	-13.928	1.00	43.84	C
ATOM	6196	CE1	HIS	F	254	27.962	46.404	-12.068	1.00	44.84	C
ATOM	6197	NE2	HIS	F	254	28.072	45.811	-13.244	1.00	45.80	N
ATOM	6198	N	ARG	F	255	33.665	48.530	-14.559	1.00	35.84	N
ATOM	6199	CA	ARG	F	255	34.663	49.440	-15.092	1.00	35.46	C
ATOM	6200	C	ARG	F	255	33.904	50.769	-15.210	1.00	34.55	C
ATOM	6201	O	ARG	F	255	32.676	50.787	-15.132	1.00	34.11	O

ATOM	6202	CB	ARG	F	255	35.151	48.974	-16.463	1.00	37.28	C
ATOM	6203	CG	ARG	F	255	34.118	49.080	-17.581	1.00	39.45	C
ATOM	6204	CD	ARG	F	255	34.768	48.839	-18.938	1.00	41.55	C
ATOM	6205	NE	ARG	F	255	33.868	49.155	-20.044	1.00	43.96	N
ATOM	6206	CZ	ARG	F	255	32.917	48.343	-20.504	1.00	45.46	C
ATOM	6207	NH1	ARG	F	255	32.733	47.144	-19.959	1.00	45.92	N
ATOM	6208	NH2	ARG	F	255	32.133	48.741	-21.499	1.00	46.26	N
ATOM	6209	N	PRO	F	256	34.617	51.895	-15.389	1.00	33.51	N
ATOM	6210	CA	PRO	F	256	33.905	53.176	-15.498	1.00	32.69	C
ATOM	6211	C	PRO	F	256	32.861	53.255	-16.609	1.00	31.51	C
ATOM	6212	O	PRO	F	256	33.050	52.718	-17.692	1.00	31.64	O
ATOM	6213	CB	PRO	F	256	35.037	54.201	-15.656	1.00	32.52	C
ATOM	6214	CG	PRO	F	256	36.175	53.394	-16.206	1.00	34.71	C
ATOM	6215	CD	PRO	F	256	36.072	52.086	-15.469	1.00	33.91	C
ATOM	6216	N	ILE	F	257	31.749	53.917	-16.313	1.00	31.13	N
ATOM	6217	CA	ILE	F	257	30.666	54.087	-17.274	1.00	31.66	C
ATOM	6218	C	ILE	F	257	30.536	55.570	-17.682	1.00	31.23	C
ATOM	6219	O	ILE	F	257	30.545	56.453	-16.826	1.00	30.88	O
ATOM	6220	CB	ILE	F	257	29.349	53.559	-16.662	1.00	32.97	C
ATOM	6221	CG1	ILE	F	257	29.440	52.035	-16.513	1.00	33.66	C
ATOM	6222	CG2	ILE	F	257	28.168	53.949	-17.520	1.00	33.20	C
ATOM	6223	CD1	ILE	F	257	28.245	51.397	-15.849	1.00	35.77	C
ATOM	6224	N	LEU	F	258	30.459	55.836	-18.987	1.00	30.39	N
ATOM	6225	CA	LEU	F	258	30.332	57.212	-19.481	1.00	31.22	C
ATOM	6226	C	LEU	F	258	28.921	57.482	-19.989	1.00	31.52	C
ATOM	6227	O	LEU	F	258	28.228	56.570	-20.453	1.00	30.67	O
ATOM	6228	CB	LEU	F	258	31.300	57.502	-20.638	1.00	30.74	C
ATOM	6229	CG	LEU	F	258	32.788	57.122	-20.641	1.00	33.91	C
ATOM	6230	CD1	LEU	F	258	33.515	58.017	-21.628	1.00	32.56	C
ATOM	6231	CD2	LEU	F	258	33.403	57.258	-19.266	1.00	33.90	C
ATOM	6232	N	GLN	F	259	28.504	58.740	-19.917	1.00	31.91	N
ATOM	6233	CA	GLN	F	259	27.183	59.120	-20.396	1.00	32.58	C
ATOM	6234	C	GLN	F	259	27.157	59.096	-21.928	1.00	32.23	C
ATOM	6235	O	GLN	F	259	28.054	59.630	-22.585	1.00	31.49	O
ATOM	6236	CB	GLN	F	259	26.818	60.517	-19.911	1.00	33.90	C
ATOM	6237	CG	GLN	F	259	25.487	61.010	-20.429	1.00	36.31	C
ATOM	6238	CD	GLN	F	259	25.313	62.486	-20.182	1.00	38.12	C
ATOM	6239	OE1	GLN	F	259	25.448	62.954	-19.055	1.00	39.31	O
ATOM	6240	NE2	GLN	F	259	25.017	63.234	-21.237	1.00	39.46	N
ATOM	6241	N	ALA	F	260	26.128	58.475	-22.492	1.00	31.76	N
ATOM	6242	CA	ALA	F	260	26.003	58.406	-23.946	1.00	32.37	C
ATOM	6243	C	ALA	F	260	25.815	59.798	-24.551	1.00	32.72	C
ATOM	6244	O	ALA	F	260	25.125	60.644	-23.986	1.00	32.74	O
ATOM	6245	CB	ALA	F	260	24.836	57.495	-24.337	1.00	32.31	C
ATOM	6246	N	GLY	F	261	26.448	60.033	-25.697	1.00	32.61	N
ATOM	6247	CA	GLY	F	261	26.335	61.326	-26.350	1.00	33.50	C
ATOM	6248	C	GLY	F	261	27.459	62.302	-26.036	1.00	34.44	C
ATOM	6249	O	GLY	F	261	27.607	63.312	-26.722	1.00	34.82	O
ATOM	6250	N	LEU	F	262	28.251	62.011	-25.006	1.00	34.98	N
ATOM	6251	CA	LEU	F	262	29.355	62.891	-24.617	1.00	34.75	C
ATOM	6252	C	LEU	F	262	30.702	62.179	-24.682	1.00	35.24	C
ATOM	6253	O	LEU	F	262	30.838	61.045	-24.233	1.00	35.56	O
ATOM	6254	CB	LEU	F	262	29.132	63.427	-23.201	1.00	34.91	C
ATOM	6255	CG	LEU	F	262	27.927	64.352	-22.989	1.00	35.98	C
ATOM	6256	CD1	LEU	F	262	27.868	64.788	-21.524	1.00	33.73	C
ATOM	6257	CD2	LEU	F	262	28.049	65.581	-23.898	1.00	34.07	C
ATOM	6258	N	PRO	F	263	31.719	62.840	-25.252	1.00	36.31	N
ATOM	6259	CA	PRO	F	263	31.645	64.190	-25.821	1.00	36.64	C
ATOM	6260	C	PRO	F	263	30.835	64.242	-27.118	1.00	37.59	C
ATOM	6261	O	PRO	F	263	30.571	63.214	-27.744	1.00	37.44	O
ATOM	6262	CB	PRO	F	263	33.114	64.546	-26.041	1.00	36.68	C
ATOM	6263	CG	PRO	F	263	33.717	63.220	-26.402	1.00	35.47	C
ATOM	6264	CD	PRO	F	263	33.079	62.284	-25.395	1.00	35.79	C
ATOM	6265	N	ALA	F	264	30.446	65.444	-27.518	1.00	38.85	N
ATOM	6266	CA	ALA	F	264	29.673	65.619	-28.742	1.00	40.21	C
ATOM	6267	C	ALA	F	264	30.528	66.217	-29.850	1.00	40.87	C

Table 3

ATOM	6268	O	ALA	F	264	31.480	66.958	-29.588	1.00	41.01	O
ATOM	6269	CB	ALA	F	264	28.456	66.512	-28.477	1.00	40.32	C
ATOM	6270	N	ASN	F	265	30.192	65.881	-31.093	1.00	42.16	N
ATOM	6271	CA	ASN	F	265	30.925	66.408	-32.237	1.00	43.51	C
ATOM	6272	C	ASN	F	265	30.826	67.928	-32.203	1.00	44.31	C
ATOM	6273	O	ASN	F	265	29.859	68.485	-31.678	1.00	44.07	O
ATOM	6274	CB	ASN	F	265	30.334	65.901	-33.560	1.00	43.88	C
ATOM	6275	CG	ASN	F	265	30.430	64.392	-33.709	1.00	45.38	C
ATOM	6276	OD1	ASN	F	265	31.428	63.776	-33.337	1.00	43.80	O
ATOM	6277	ND2	ASN	F	265	29.392	63.792	-34.277	1.00	46.59	N
ATOM	6278	N	ALA	F	266	31.832	68.595	-32.753	1.00	45.27	N
ATOM	6279	CA	ALA	F	266	31.835	70.052	-32.792	1.00	46.52	C
ATOM	6280	C	ALA	F	266	32.421	70.556	-34.111	1.00	47.37	C
ATOM	6281	O	ALA	F	266	33.250	69.883	-34.732	1.00	47.43	O
ATOM	6282	CB	ALA	F	266	32.623	70.610	-31.609	1.00	45.85	C
ATOM	6283	N	SER	F	267	31.968	71.734	-34.532	1.00	49.00	N
ATOM	6284	CA	SER	F	267	32.423	72.370	-35.771	1.00	51.19	C
ATOM	6285	C	SER	F	267	32.706	73.849	-35.469	1.00	52.95	C
ATOM	6286	O	SER	F	267	31.914	74.499	-34.782	1.00	53.04	O
ATOM	6287	CB	SER	F	267	31.340	72.264	-36.853	1.00	50.75	C
ATOM	6288	N	THR	F	268	33.844	74.373	-35.941	1.00	55.40	N
ATOM	6289	CA	THR	F	268	34.232	75.777	-35.692	1.00	58.15	C
ATOM	6290	C	THR	F	268	34.768	76.485	-36.953	1.00	59.75	C
ATOM	6291	O	THR	F	268	34.357	76.170	-38.069	1.00	60.60	O
ATOM	6292	CB	THR	F	268	35.320	75.880	-34.580	1.00	58.09	C
ATOM	6293	QG1	THR	F	268	34.939	75.080	-33.455	1.00	59.93	O
ATOM	6294	CG2	THR	F	268	35.477	77.321	-34.105	1.00	58.09	C
ATOM	6295	N	VAL	F	269	35.698	77.424	-36.775	1.00	61.40	N
ATOM	6296	CA	VAL	F	269	36.251	78.165	-37.901	1.00	62.82	C
ATOM	6297	C	VAL	F	269	37.752	78.435	-37.833	1.00	64.22	C
ATOM	6298	O	VAL	F	269	38.540	77.810	-38.553	1.00	64.66	O
ATOM	6299	CB	VAL	F	269	35.531	79.508	-38.057	1.00	62.42	C
ATOM	6300	N	VAL	F	270	38.153	79.376	-36.985	1.00	65.60	N
ATOM	6301	CA	VAL	F	270	39.572	79.711	-36.876	1.00	66.74	C
ATOM	6302	C	VAL	F	270	39.911	80.441	-35.578	1.00	67.67	C
ATOM	6303	O	VAL	F	270	41.053	80.815	-35.342	1.00	67.88	O
ATOM	6304	CB	VAL	F	270	40.035	80.596	-38.049	1.00	66.63	C
ATOM	6305	N	GLY	F	271	38.909	80.640	-34.738	1.00	68.56	N
ATOM	6306	CA	GLY	F	271	39.123	81.314	-33.470	1.00	69.14	C
ATOM	6307	C	GLY	F	271	38.476	80.536	-32.347	1.00	70.00	C
ATOM	6308	O	GLY	F	271	38.561	79.312	-32.314	1.00	70.36	O
ATOM	6309	N	ASP	F	273	36.760	78.957	-30.970	1.00	53.40	N
ATOM	6310	CA	ASP	F	273	36.988	78.210	-29.739	1.00	53.60	C
ATOM	6311	C	ASP	F	273	35.983	77.068	-29.585	1.00	53.06	C
ATOM	6312	O	ASP	F	273	34.844	77.157	-30.052	1.00	53.49	O
ATOM	6313	CB	ASP	F	273	36.917	79.147	-28.527	1.00	54.74	C
ATOM	6314	CG	ASP	F	273	38.227	79.891	-28.287	1.00	56.07	C
ATOM	6315	OD1	ASP	F	273	38.832	80.363	-29.271	1.00	56.61	O
ATOM	6316	OD2	ASP	F	273	38.649	80.014	-27.116	1.00	55.76	O
ATOM	6317	N	VAL	F	274	36.408	75.991	-28.929	1.00	51.73	N
ATOM	6318	CA	VAL	F	274	35.535	74.839	-28.740	1.00	50.50	C
ATOM	6319	C	VAL	F	274	35.823	74.060	-27.455	1.00	49.86	C
ATOM	6320	O	VAL	F	274	36.870	74.227	-26.824	1.00	49.68	O
ATOM	6321	CB	VAL	F	274	35.653	73.865	-29.931	1.00	50.21	C
ATOM	6322	CG1	VAL	F	274	36.962	73.093	-29.849	1.00	49.57	C
ATOM	6323	CG2	VAL	F	274	34.466	72.925	-29.949	1.00	51.04	C
ATOM	6324	N	GLU	F	275	34.880	73.208	-27.070	1.00	49.12	N
ATOM	6325	CA	GLU	F	275	35.046	72.382	-25.888	1.00	48.19	C
ATOM	6326	C	GLU	F	275	34.438	71.004	-26.089	1.00	47.10	C
ATOM	6327	O	GLU	F	275	33.559	70.808	-26.928	1.00	47.91	O
ATOM	6328	CB	GLU	F	275	34.413	73.037	-24.663	1.00	48.81	C
ATOM	6329	CG	GLU	F	275	32.915	73.193	-24.749	1.00	49.77	C
ATOM	6330	CD	GLU	F	275	32.298	73.481	-23.397	1.00	50.13	C
ATOM	6331	OE1	GLU	F	275	32.974	74.114	-22.553	1.00	50.91	O
ATOM	6332	OE2	GLU	F	275	31.136	73.083	-23.185	1.00	50.57	O
ATOM	6333	N	PHE	F	276	34.934	70.050	-25.312	1.00	45.40	N

Table 3

ATOM	6334	CA	PHE	F	276	34.458	68.680	-25.342	1.00	42.98	C
ATOM	6335	C	PHE	F	276	34.182	68.306	-23.899	1.00	41.88	C
ATOM	6336	O	PHE	F	276	35.051	68.445	-23.042	1.00	40.61	O
ATOM	6337	CB	PHE	F	276	35.529	67.759	-25.918	1.00	44.18	C
ATOM	6338	CG	PHE	F	276	35.672	67.858	-27.405	1.00	45.07	C
ATOM	6339	CD1	PHE	F	276	34.645	67.426	-28.242	1.00	45.08	C
ATOM	6340	CD2	PHE	F	276	36.838	68.367	-27.972	1.00	45.06	C
ATOM	6341	CE1	PHE	F	276	34.776	67.496	-29.625	1.00	46.84	C
ATOM	6342	CE2	PHE	F	276	36.985	68.443	-29.352	1.00	46.77	C
ATOM	6343	CZ	PHE	F	276	35.950	68.006	-30.187	1.00	46.46	C
ATOM	6344	N	VAL	F	277	32.969	67.842	-23.630	1.00	40.76	N
ATOM	6345	CA	VAL	F	277	32.597	67.471	-22.278	1.00	40.08	C
ATOM	6346	C	VAL	F	277	32.449	65.969	-22.130	1.00	39.86	C
ATOM	6347	O	VAL	F	277	32.090	65.262	-23.075	1.00	40.39	O
ATOM	6348	CB	VAL	F	277	31.283	68.161	-21.857	1.00	39.97	C
ATOM	6349	CG1	VAL	F	277	30.900	67.749	-20.444	1.00	40.02	C
ATOM	6350	CG2	VAL	F	277	31.451	69.675	-21.935	1.00	40.07	C
ATOM	6351	N	CYS	F	278	32.735	65.483	-20.932	1.00	38.84	N
ATOM	6352	CA	CYS	F	278	32.625	64.068	-20.649	1.00	38.38	C
ATOM	6353	C	CYS	F	278	32.048	63.891	-19.253	1.00	37.50	C
ATOM	6354	O	CYS	F	278	32.347	64.685	-18.361	1.00	37.83	O
ATOM	6355	CB	CYS	F	278	33.999	63.410	-20.730	1.00	39.41	C
ATOM	6356	SG	CYS	F	278	33.903	61.622	-20.662	1.00	42.56	S
ATOM	6357	N	LYS	F	279	31.217	62.865	-19.068	1.00	35.92	N
ATOM	6358	CA	LYS	F	279	30.609	62.579	-17.764	1.00	34.91	C
ATOM	6359	C	LYS	F	279	30.873	61.137	-17.332	1.00	33.60	C
ATOM	6360	O	LYS	F	279	30.325	60.190	-17.921	1.00	32.70	O
ATOM	6361	CB	LYS	F	279	29.094	62.816	-17.798	1.00	35.37	C
ATOM	6362	CG	LYS	F	279	28.663	64.219	-17.399	1.00	38.47	C
ATOM	6363	CD	LYS	F	279	29.108	64.582	-15.965	1.00	37.93	C
ATOM	6364	CE	LYS	F	279	28.428	63.709	-14.913	1.00	38.82	C
ATOM	6365	NZ	LYS	F	279	28.779	64.089	-13.513	1.00	37.70	N
ATOM	6366	N	VAL	F	280	31.679	60.977	-16.281	1.00	31.94	N
ATOM	6367	CA	VAL	F	280	32.053	59.653	-15.778	1.00	29.99	C
ATOM	6368	C	VAL	F	280	31.469	59.231	-14.432	1.00	30.83	C
ATOM	6369	O	VAL	F	280	31.258	60.050	-13.534	1.00	30.77	O
ATOM	6370	CB	VAL	F	280	33.600	59.531	-15.683	1.00	29.69	C
ATOM	6371	CG1	VAL	F	280	33.992	58.184	-15.095	1.00	29.19	C
ATOM	6372	CG2	VAL	F	280	34.231	59.738	-17.073	1.00	28.52	C
ATOM	6373	N	TYR	F	281	31.213	57.931	-14.310	1.00	31.35	N
ATOM	6374	CA	TYR	F	281	30.701	57.320	-13.082	1.00	32.39	C
ATOM	6375	C	TYR	F	281	31.546	56.084	-12.767	1.00	30.82	C
ATOM	6376	O	TYR	F	281	31.819	55.279	-13.652	1.00	31.49	O
ATOM	6377	CB	TYR	F	281	29.246	56.882	-13.239	1.00	35.65	C
ATOM	6378	CG	TYR	F	281	28.314	57.977	-13.697	1.00	39.56	C
ATOM	6379	CD1	TYR	F	281	28.202	58.313	-15.054	1.00	41.11	C
ATOM	6380	CD2	TYR	F	281	27.532	58.672	-12.779	1.00	41.01	C
ATOM	6381	CE1	TYR	F	281	27.330	59.311	-15.479	1.00	42.28	C
ATOM	6382	CE2	TYR	F	281	26.658	59.675	-13.195	1.00	43.31	C
ATOM	6383	CZ	TYR	F	281	26.560	59.986	-14.546	1.00	43.29	C
ATOM	6384	OH	TYR	F	281	25.675	60.962	-14.951	1.00	45.14	O
ATOM	6385	N	SER	F	282	31.958	55.935	-11.516	1.00	29.47	N
ATOM	6386	CA	SER	F	282	32.762	54.789	-11.105	1.00	28.89	C
ATOM	6387	C	SER	F	282	32.877	54.700	-9.579	1.00	28.68	C
ATOM	6388	O	SER	F	282	32.899	55.722	-8.897	1.00	28.67	O
ATOM	6389	CB	SER	F	282	34.158	54.890	-11.734	1.00	28.94	C
ATOM	6390	OG	SER	F	282	35.021	53.879	-11.237	1.00	28.16	O
ATOM	6391	N	ASP	F	283	32.940	53.478	-9.050	1.00	28.16	N
ATOM	6392	CA	ASP	F	283	33.070	53.258	-7.605	1.00	27.16	C
ATOM	6393	C	ASP	F	283	34.568	53.311	-7.323	1.00	27.79	C
ATOM	6394	O	ASP	F	283	35.035	54.178	-6.589	1.00	27.96	O
ATOM	6395	CB	ASP	F	283	32.502	51.890	-7.229	1.00	26.32	C
ATOM	6396	CG	ASP	F	283	32.484	51.639	-5.723	1.00	25.14	C
ATOM	6397	OD1	ASP	F	283	31.759	50.709	-5.315	1.00	25.10	O
ATOM	6398	OD2	ASP	F	283	33.175	52.338	-4.947	1.00	22.71	O
ATOM	6399	N	ALA	F	284	35.310	52.376	-7.918	1.00	27.44	N

ATOM	6400	CA	ALA	F	284	36.757	52.357	-7.786	1.00	27.90	C
ATOM	6401	C	ALA	F	284	37.213	53.672	-8.427	1.00	27.70	C
ATOM	6402	O	ALA	F	284	36.701	54.064	-9.481	1.00	27.71	O
ATOM	6403	CB	ALA	F	284	37.349	51.171	-8.552	1.00	27.12	C
ATOM	6404	N	GLN	F	285	38.159	54.356	-7.795	1.00	26.74	N
ATOM	6405	CA	GLN	F	285	38.652	55.631	-8.327	1.00	27.03	C
ATOM	6406	C	GLN	F	285	39.040	55.505	-9.810	1.00	25.88	C
ATOM	6407	O	GLN	F	285	39.871	54.673	-10.180	1.00	25.70	O
ATOM	6408	CB	GLN	F	285	39.842	56.111	-7.487	1.00	26.84	C
ATOM	6409	CG	GLN	F	285	39.982	57.622	-7.332	1.00	27.07	C
ATOM	6410	CD	GLN	F	285	38.761	58.293	-6.718	1.00	26.94	C
ATOM	6411	OE1	GLN	F	285	38.175	57.792	-5.760	1.00	25.31	O
ATOM	6412	NE2	GLN	F	285	38.381	59.452	-7.269	1.00	27.07	N
ATOM	6413	N	PRO	F	286	38.422	56.327	-10.677	1.00	26.08	N
ATOM	6414	CA	PRO	F	286	38.702	56.308	-12.117	1.00	26.74	C
ATOM	6415	C	PRO	F	286	39.795	57.301	-12.539	1.00	27.03	C
ATOM	6416	O	PRO	F	286	39.980	58.335	-11.902	1.00	27.72	O
ATOM	6417	CB	PRO	F	286	37.338	56.653	-12.726	1.00	26.78	C
ATOM	6418	CG	PRO	F	286	36.815	57.707	-11.769	1.00	26.69	C
ATOM	6419	CD	PRO	F	286	37.252	57.182	-10.376	1.00	26.14	C
ATOM	6420	N	HIS	F	287	40.518	56.976	-13.606	1.00	27.57	N
ATOM	6421	CA	HIS	F	287	41.559	57.854	-14.119	1.00	27.86	C
ATOM	6422	C	HIS	F	287	41.125	58.318	-15.508	1.00	28.19	C
ATOM	6423	O	HIS	F	287	40.935	57.510	-16.423	1.00	27.70	O
ATOM	6424	CB	HIS	F	287	42.904	57.142	-14.188	1.00	28.47	C
ATOM	6425	CG	HIS	F	287	44.023	58.038	-14.607	1.00	30.28	C
ATOM	6426	ND1	HIS	F	287	44.491	58.089	-15.902	1.00	30.79	N
ATOM	6427	CD2	HIS	F	287	44.723	58.971	-13.915	1.00	29.73	C
ATOM	6428	CE1	HIS	F	287	45.430	59.015	-15.993	1.00	31.36	C
ATOM	6429	NE2	HIS	F	287	45.588	59.568	-14.802	1.00	30.56	N
ATOM	6430	N	ILE	F	288	40.948	59.626	-15.644	1.00	27.95	N
ATOM	6431	CA	ILE	F	288	40.477	60.214	-16.890	1.00	28.99	C
ATOM	6432	C	ILE	F	288	41.541	60.990	-17.665	1.00	30.28	C
ATOM	6433	O	ILE	F	288	42.351	61.713	-17.084	1.00	30.94	O
ATOM	6434	CB	ILE	F	288	39.277	61.150	-16.600	1.00	27.26	C
ATOM	6435	CG1	ILE	F	288	38.228	60.385	-15.786	1.00	27.85	C
ATOM	6436	CG2	ILE	F	288	38.678	61.671	-17.889	1.00	27.58	C
ATOM	6437	CD1	ILE	F	288	37.120	61.269	-15.233	1.00	24.83	C
ATOM	6438	N	GLN	F	289	41.537	60.823	-18.982	1.00	31.52	N
ATOM	6439	CA	GLN	F	289	42.470	61.533	-19.849	1.00	33.66	C
ATOM	6440	C	GLN	F	289	41.800	61.828	-21.185	1.00	33.68	C
ATOM	6441	O	GLN	F	289	40.826	61.175	-21.560	1.00	33.89	O
ATOM	6442	CB	GLN	F	289	43.757	60.715	-20.065	1.00	35.33	C
ATOM	6443	CG	GLN	F	289	43.567	59.332	-20.668	1.00	37.11	C
ATOM	6444	CD	GLN	F	289	44.875	58.559	-20.767	1.00	39.44	C
ATOM	6445	OE1	GLN	F	289	45.823	59.003	-21.418	1.00	41.60	O
ATOM	6446	NE2	GLN	F	289	44.934	57.397	-20.119	1.00	39.39	N
ATOM	6447	N	TRP	F	290	42.307	62.838	-21.879	1.00	34.29	N
ATOM	6448	CA	TRP	F	290	41.785	63.227	-23.182	1.00	35.09	C
ATOM	6449	C	TRP	F	290	42.849	62.919	-24.225	1.00	36.73	C
ATOM	6450	O	TRP	F	290	44.013	63.311	-24.073	1.00	36.45	O
ATOM	6451	CB	TRP	F	290	41.442	64.720	-23.205	1.00	34.27	C
ATOM	6452	CG	TRP	F	290	40.162	65.060	-22.494	1.00	33.19	C
ATOM	6453	CD1	TRP	F	290	40.019	65.480	-21.202	1.00	33.69	C
ATOM	6454	CD2	TRP	F	290	38.839	65.012	-23.048	1.00	32.32	C
ATOM	6455	NE1	TRP	F	290	38.688	65.702	-20.916	1.00	31.67	N
ATOM	6456	CE2	TRP	F	290	37.944	65.419	-22.030	1.00	32.16	C
ATOM	6457	CE3	TRP	F	290	38.325	64.661	-24.300	1.00	32.46	C
ATOM	6458	CZ2	TRP	F	290	36.565	65.488	-22.229	1.00	31.05	C
ATOM	6459	CZ3	TRP	F	290	36.953	64.730	-24.501	1.00	32.67	C
ATOM	6460	CH2	TRP	F	290	36.088	65.141	-23.466	1.00	33.18	C
ATOM	6461	N	ILE	F	291	42.448	62.217	-25.281	1.00	38.06	N
ATOM	6462	CA	ILE	F	291	43.372	61.828	-26.336	1.00	40.00	C
ATOM	6463	C	ILE	F	291	42.960	62.279	-27.740	1.00	41.89	C
ATOM	6464	O	ILE	F	291	41.778	62.297	-28.086	1.00	42.04	O
ATOM	6465	CB	ILE	F	291	43.551	60.297	-26.352	1.00	39.88	C

Table 3

ATOM	6466	CG1	ILE	F	291	44.070	59.823	-24.988	1.00	39.61	C
ATOM	6467	CG2	ILE	F	291	44.500	59.891	-27.473	1.00	39.23	C
ATOM	6468	CD1	ILE	F	291	44.104	58.317	-24.832	1.00	40.37	C
ATOM	6469	N	LYS	F	292	43.956	62.641	-28.542	1.00	43.38	N
ATOM	6470	CA	LYS	F	292	43.734	63.066	-29.918	1.00	45.28	C
ATOM	6471	C	LYS	F	292	44.359	62.001	-30.811	1.00	46.12	C
ATOM	6472	O	LYS	F	292	45.498	61.586	-30.585	1.00	46.03	O
ATOM	6473	CB	LYS	F	292	44.397	64.416	-30.166	1.00	45.89	C
ATOM	6474	CG	LYS	F	292	43.655	65.304	-31.149	1.00	47.53	C
ATOM	6475	CD	LYS	F	292	44.127	65.104	-32.576	1.00	48.59	C
ATOM	6476	CE	LYS	F	292	43.530	66.187	-33.472	1.00	48.61	C
ATOM	6477	NZ	LYS	F	292	44.350	66.408	-34.692	1.00	49.06	N
ATOM	6478	N	HIS	F	293	43.603	61.546	-31.804	1.00	47.10	N
ATOM	6479	CA	HIS	F	293	44.085	60.517	-32.719	1.00	47.96	C
ATOM	6480	C	HIS	F	293	44.955	61.142	-33.804	1.00	47.99	C
ATOM	6481	O	HIS	F	293	44.450	61.845	-34.678	1.00	48.84	O
ATOM	6482	CB	HIS	F	293	42.897	59.790	-33.358	1.00	47.51	C
ATOM	6483	N	TYR	F	308	48.337	55.850	-33.701	1.00	56.86	N
ATOM	6484	CA	TYR	F	308	49.140	56.969	-33.210	1.00	56.77	C
ATOM	6485	C	TYR	F	308	48.287	57.894	-32.341	1.00	56.10	C
ATOM	6486	O	TYR	F	308	47.397	58.586	-32.841	1.00	56.75	O
ATOM	6487	CB	TYR	F	308	49.724	57.759	-34.387	1.00	56.75	C
ATOM	6488	N	LEU	F	309	48.575	57.916	-31.044	1.00	54.88	N
ATOM	6489	CA	LEU	F	309	47.818	58.737	-30.108	1.00	53.64	C
ATOM	6490	C	LEU	F	309	48.662	59.831	-29.461	1.00	52.36	C
ATOM	6491	O	LEU	F	309	49.884	59.709	-29.362	1.00	52.73	O
ATOM	6492	CB	LEU	F	309	47.231	57.836	-29.025	1.00	53.75	C
ATOM	6493	CG	LEU	F	309	46.554	56.586	-29.590	1.00	54.37	C
ATOM	6494	CD1	LEU	F	309	46.186	55.641	-28.454	1.00	55.15	C
ATOM	6495	CD2	LEU	F	309	45.330	56.990	-30.403	1.00	54.08	C
ATOM	6496	N	LYS	F	310	48.002	60.898	-29.026	1.00	50.33	N
ATOM	6497	CA	LYS	F	310	48.675	62.011	-28.361	1.00	48.17	C
ATOM	6498	C	LYS	F	310	47.847	62.434	-27.150	1.00	46.65	C
ATOM	6499	O	LYS	F	310	46.684	62.822	-27.291	1.00	45.61	O
ATOM	6500	CB	LYS	F	310	48.826	63.194	-29.316	1.00	48.37	C
ATOM	6501	N	VAL	F	311	48.449	62.362	-25.964	1.00	44.95	N
ATOM	6502	CA	VAL	F	311	47.753	62.729	-24.731	1.00	43.52	C
ATOM	6503	C	VAL	F	311	47.706	64.238	-24.530	1.00	42.93	C
ATOM	6504	O	VAL	F	311	48.733	64.881	-24.312	1.00	43.27	O
ATOM	6505	CB	VAL	F	311	48.422	62.093	-23.486	1.00	43.34	C
ATOM	6506	CG1	VAL	F	311	47.686	62.534	-22.219	1.00	41.56	C
ATOM	6507	CG2	VAL	F	311	48.420	60.575	-23.608	1.00	42.02	C
ATOM	6508	N	LEU	F	312	46.505	64.798	-24.588	1.00	41.63	N
ATOM	6509	CA	LEU	F	312	46.342	66.233	-24.417	1.00	40.85	C
ATOM	6510	C	LEU	F	312	46.282	66.655	-22.962	1.00	39.66	C
ATOM	6511	O	LEU	F	312	46.784	67.714	-22.597	1.00	39.35	O
ATOM	6512	CB	LEU	F	312	45.061	66.709	-25.108	1.00	41.96	C
ATOM	6513	CG	LEU	F	312	44.861	66.260	-26.556	1.00	43.95	C
ATOM	6514	CD1	LEU	F	312	43.761	67.101	-27.185	1.00	43.41	C
ATOM	6515	CD2	LEU	F	312	46.163	66.417	-27.342	1.00	44.19	C
ATOM	6516	N	LYS	F	313	45.679	65.812	-22.131	1.00	38.22	N
ATOM	6517	CA	LYS	F	313	45.478	66.140	-20.730	1.00	37.23	C
ATOM	6518	C	LYS	F	313	45.204	64.855	-19.957	1.00	36.19	C
ATOM	6519	O	LYS	F	313	44.510	63.969	-20.462	1.00	36.44	O
ATOM	6520	CB	LYS	F	313	44.261	67.069	-20.661	1.00	37.39	C
ATOM	6521	CG	LYS	F	313	43.925	67.678	-19.334	1.00	38.92	C
ATOM	6522	CD	LYS	F	313	42.674	68.528	-19.501	1.00	39.81	C
ATOM	6523	CE	LYS	F	313	42.284	69.241	-18.217	1.00	41.61	C
ATOM	6524	NZ	LYS	F	313	40.973	69.945	-18.387	1.00	41.89	N
ATOM	6525	N	ALA	F	314	45.731	64.755	-18.738	1.00	33.97	N
ATOM	6526	CA	ALA	F	314	45.535	63.563	-17.917	1.00	32.58	C
ATOM	6527	C	ALA	F	314	45.420	63.900	-16.432	1.00	32.38	C
ATOM	6528	O	ALA	F	314	46.160	64.752	-15.911	1.00	31.85	O
ATOM	6529	CB	ALA	F	314	46.674	62.590	-18.148	1.00	32.22	C
ATOM	6530	N	ALA	F	315	44.486	63.229	-15.757	1.00	31.35	N
ATOM	6531	CA	ALA	F	315	44.232	63.436	-14.331	1.00	30.87	C

Table 3

ATOM	6532	C	ALA	F	315	45.429	63.080	-13.452	1.00	30.61	C
ATOM	6533	O	ALA	F	315	46.245	62.226	-13.804	1.00	30.29	O
ATOM	6534	CB	ALA	F	315	43.004	62.623	-13.891	1.00	30.19	C
ATOM	6535	N	GLY	F	316	45.520	63.750	-12.309	1.00	30.74	N
ATOM	6536	CA	GLY	F	316	46.598	63.512	-11.374	1.00	32.31	C
ATOM	6537	C	GLY	F	316	46.654	64.590	-10.309	1.00	34.07	C
ATOM	6538	O	GLY	F	316	45.778	65.449	-10.234	1.00	33.07	O
ATOM	6539	N	VAL	F	317	47.686	64.535	-9.479	1.00	35.99	N
ATOM	6540	CA	VAL	F	317	47.876	65.509	-8.412	1.00	38.96	C
ATOM	6541	C	VAL	F	317	47.938	66.947	-8.941	1.00	39.46	C
ATOM	6542	O	VAL	F	317	47.459	67.868	-8.291	1.00	39.05	O
ATOM	6543	CB	VAL	F	317	49.170	65.196	-7.629	1.00	39.98	C
ATOM	6544	CG1	VAL	F	317	49.543	66.364	-6.738	1.00	42.38	C
ATOM	6545	CG2	VAL	F	317	48.962	63.936	-6.776	1.00	40.44	C
ATOM	6546	N	ASN	F	318	48.519	67.127	-10.124	1.00	41.29	N
ATOM	6547	CA	ASN	F	318	48.641	68.457	-10.716	1.00	43.00	C
ATOM	6548	C	ASN	F	318	47.511	68.828	-11.665	1.00	43.30	C
ATOM	6549	O	ASN	F	318	47.473	69.939	-12.184	1.00	43.85	O
ATOM	6550	CB	ASN	F	318	49.977	68.598	-11.442	1.00	44.26	C
ATOM	6551	CG	ASN	F	318	51.132	68.755	-10.482	1.00	45.68	C
ATOM	6552	OD1	ASN	F	318	51.083	69.578	-9.571	1.00	46.62	O
ATOM	6553	ND2	ASN	F	318	52.182	67.968	-10.680	1.00	47.19	N
ATOM	6554	N	THR	F	319	46.603	67.891	-11.901	1.00	42.99	N
ATOM	6555	CA	THR	F	319	45.457	68.141	-12.765	1.00	42.33	C
ATOM	6556	C	THR	F	319	44.283	67.370	-12.167	1.00	41.92	C
ATOM	6557	O	THR	F	319	43.915	66.291	-12.637	1.00	41.66	O
ATOM	6558	CB	THR	F	319	45.709	67.671	-14.218	1.00	42.29	C
ATOM	6559	OG1	THR	F	319	46.962	68.179	-14.689	1.00	42.83	O
ATOM	6560	CG2	THR	F	319	44.618	68.191	-15.126	1.00	41.88	C
ATOM	6561	N	THR	F	320	43.721	67.951	-11.114	1.00	41.14	N
ATOM	6562	CA	THR	F	320	42.604	67.406	-10.347	1.00	40.93	C
ATOM	6563	C	THR	F	320	41.342	67.029	-11.133	1.00	40.66	C
ATOM	6564	O	THR	F	320	41.114	67.531	-12.234	1.00	40.21	O
ATOM	6565	CB	THR	F	320	42.246	68.416	-9.215	1.00	40.83	C
ATOM	6566	OG1	THR	F	320	43.268	68.369	-8.217	1.00	41.48	O
ATOM	6567	CG2	THR	F	320	40.905	68.104	-8.572	1.00	41.34	C
ATOM	6568	N	ASP	F	321	40.530	66.141	-10.550	1.00	39.85	N
ATOM	6569	CA	ASP	F	321	39.279	65.691	-11.164	1.00	40.39	C
ATOM	6570	C	ASP	F	321	38.250	66.816	-11.303	1.00	40.53	C
ATOM	6571	O	ASP	F	321	37.332	66.725	-12.117	1.00	40.60	O
ATOM	6572	CB	ASP	F	321	38.623	64.566	-10.341	1.00	40.53	C
ATOM	6573	CG	ASP	F	321	39.375	63.252	-10.417	1.00	40.72	C
ATOM	6574	OD1	ASP	F	321	40.091	63.029	-11.411	1.00	40.02	O
ATOM	6575	OD2	ASP	F	321	39.230	62.434	-9.483	1.00	40.69	O
ATOM	6576	N	LYS	F	322	38.389	67.863	-10.497	1.00	40.77	N
ATOM	6577	CA	LYS	F	322	37.443	68.979	-10.526	1.00	40.58	C
ATOM	6578	C	LYS	F	322	37.221	69.549	-11.922	1.00	40.18	C
ATOM	6579	O	LYS	F	322	36.099	69.875	-12.291	1.00	40.21	O
ATOM	6580	CB	LYS	F	322	37.914	70.098	-9.589	1.00	40.95	C
ATOM	6581	N	GLU	F	323	38.288	69.653	-12.704	1.00	40.02	N
ATOM	6582	CA	GLU	F	323	38.184	70.221	-14.046	1.00	40.16	C
ATOM	6583	C	GLU	F	323	38.671	69.305	-15.174	1.00	40.12	C
ATOM	6584	O	GLU	F	323	38.862	69.755	-16.308	1.00	39.87	O
ATOM	6585	CB	GLU	F	323	38.971	71.537	-14.096	1.00	40.79	C
ATOM	6586	N	ILE	F	324	38.856	68.024	-14.872	1.00	39.58	N
ATOM	6587	CA	ILE	F	324	39.353	67.066	-15.857	1.00	38.68	C
ATOM	6588	C	ILE	F	324	38.302	66.638	-16.897	1.00	37.55	C
ATOM	6589	O	ILE	F	324	38.649	66.236	-18.002	1.00	36.91	O
ATOM	6590	CB	ILE	F	324	39.925	65.801	-15.118	1.00	39.46	C
ATOM	6591	CG1	ILE	F	324	41.225	65.329	-15.772	1.00	40.20	C
ATOM	6592	CG2	ILE	F	324	38.890	64.689	-15.079	1.00	39.11	C
ATOM	6593	CD1	ILE	F	324	41.097	64.896	-17.187	1.00	40.48	C
ATOM	6594	N	GLU	F	325	37.024	66.742	-16.560	1.00	37.08	N
ATOM	6595	CA	GLU	F	325	35.976	66.321	-17.489	1.00	38.65	C
ATOM	6596	C	GLU	F	325	35.615	67.265	-18.641	1.00	39.40	C
ATOM	6597	O	GLU	F	325	34.725	66.964	-19.440	1.00	39.05	O

Table 3

ATOM	6598	CB	GLU	F	325	34.710	65.951	-16.713	1.00	38.67	C
ATOM	6599	CG	GLU	F	325	34.796	64.584	-16.035	1.00	39.54	C
ATOM	6600	CD	GLU	F	325	33.660	64.342	-15.059	1.00	40.30	C
ATOM	6601	OE1	GLU	F	325	33.587	65.078	-14.055	1.00	41.21	O
ATOM	6602	OE2	GLU	F	325	32.840	63.424	-15.288	1.00	41.44	O
ATOM	6603	N	VAL	F	326	36.292	68.402	-18.735	1.00	39.99	N
ATOM	6604	CA	VAL	F	326	36.025	69.327	-19.833	1.00	40.92	C
ATOM	6605	C	VAL	F	326	37.345	69.692	-20.492	1.00	41.51	C
ATOM	6606	O	VAL	F	326	38.309	70.024	-19.813	1.00	41.96	O
ATOM	6607	CB	VAL	F	326	35.331	70.608	-19.343	1.00	41.03	C
ATOM	6608	CG1	VAL	F	326	35.075	71.542	-20.522	1.00	41.22	C
ATOM	6609	CG2	VAL	F	326	34.028	70.253	-18.646	1.00	40.81	C
ATOM	6610	N	LEU	F	327	37.390	69.602	-21.816	1.00	42.42	N
ATOM	6611	CA	LEU	F	327	38.595	69.920	-22.579	1.00	43.76	C
ATOM	6612	C	LEU	F	327	38.346	71.154	-23.442	1.00	44.79	C
ATOM	6613	O	LEU	F	327	37.456	71.144	-24.295	1.00	44.63	O
ATOM	6614	CB	LEU	F	327	38.968	68.742	-23.486	1.00	44.26	C
ATOM	6615	CG	LEU	F	327	40.164	68.970	-24.420	1.00	44.64	C
ATOM	6616	CD1	LEU	F	327	41.459	68.949	-23.619	1.00	44.42	C
ATOM	6617	CD2	LEU	F	327	40.195	67.903	-25.495	1.00	44.68	C
ATOM	6618	N	TYR	F	328	39.138	72.203	-23.225	1.00	45.43	N
ATOM	6619	CA	TYR	F	328	38.996	73.448	-23.974	1.00	46.80	C
ATOM	6620	C	TYR	F	328	40.084	73.598	-25.033	1.00	47.92	C
ATOM	6621	O	TYR	F	328	41.247	73.287	-24.781	1.00	48.34	O
ATOM	6622	CB	TYR	F	328	39.045	74.636	-23.010	1.00	46.06	C
ATOM	6623	N	ILE	F	329	39.697	74.065	-26.218	1.00	49.45	N
ATOM	6624	CA	ILE	F	329	40.630	74.285	-27.328	1.00	51.14	C
ATOM	6625	C	ILE	F	329	40.308	75.646	-27.957	1.00	52.51	C
ATOM	6626	O	ILE	F	329	39.272	75.797	-28.611	1.00	52.52	O
ATOM	6627	CB	ILE	F	329	40.488	73.191	-28.414	1.00	50.82	C
ATOM	6628	N	ARG	F	330	41.193	76.626	-27.762	1.00	54.06	N
ATOM	6629	CA	ARG	F	330	40.991	77.982	-28.283	1.00	54.82	C
ATOM	6630	C	ARG	F	330	41.824	78.308	-29.522	1.00	55.21	C
ATOM	6631	O	ARG	F	330	42.884	77.714	-29.739	1.00	55.27	O
ATOM	6632	CB	ARG	F	330	41.301	79.001	-27.182	1.00	55.05	C
ATOM	6633	N	ASN	F	331	41.341	79.260	-30.321	1.00	55.59	N
ATOM	6634	CA	ASN	F	331	42.038	79.685	-31.535	1.00	56.01	C
ATOM	6635	C	ASN	F	331	42.474	78.463	-32.333	1.00	56.52	C
ATOM	6636	O	ASN	F	331	43.660	78.282	-32.613	1.00	56.89	O
ATOM	6637	CB	ASN	F	331	43.268	80.526	-31.167	1.00	55.05	C
ATOM	6638	N	VAL	F	332	41.507	77.631	-32.704	1.00	56.90	N
ATOM	6639	CA	VAL	F	332	41.789	76.407	-33.441	1.00	57.07	C
ATOM	6640	C	VAL	F	332	42.386	76.615	-34.827	1.00	57.17	C
ATOM	6641	O	VAL	F	332	42.114	77.608	-35.494	1.00	57.28	O
ATOM	6642	CB	VAL	F	332	40.513	75.551	-33.590	1.00	56.97	C
ATOM	6643	N	THR	F	333	43.212	75.662	-35.245	1.00	57.38	N
ATOM	6644	CA	THR	F	333	43.837	75.689	-36.562	1.00	57.57	C
ATOM	6645	C	THR	F	333	43.264	74.484	-37.305	1.00	57.51	C
ATOM	6646	O	THR	F	333	42.549	73.677	-36.712	1.00	57.93	O
ATOM	6647	CB	THR	F	333	45.372	75.542	-36.466	1.00	57.59	C
ATOM	6648	N	PHE	F	334	43.562	74.357	-38.593	1.00	57.10	N
ATOM	6649	CA	PHE	F	334	43.054	73.222	-39.355	1.00	56.54	C
ATOM	6650	C	PHE	F	334	43.709	71.939	-38.841	1.00	56.06	C
ATOM	6651	O	PHE	F	334	43.181	70.838	-39.017	1.00	56.04	O
ATOM	6652	CB	PHE	F	334	43.341	73.407	-40.850	1.00	56.71	C
ATOM	6653	N	GLU	F	335	44.858	72.091	-38.192	1.00	55.14	N
ATOM	6654	CA	GLU	F	335	45.583	70.950	-37.650	1.00	54.37	C
ATOM	6655	C	GLU	F	335	44.838	70.313	-36.470	1.00	53.76	C
ATOM	6656	O	GLU	F	335	45.003	69.123	-36.193	1.00	53.58	O
ATOM	6657	CB	GLU	F	335	46.986	71.383	-37.204	1.00	54.78	C
ATOM	6658	N	ASP	F	336	44.018	71.102	-35.779	1.00	52.59	N
ATOM	6659	CA	ASP	F	336	43.274	70.588	-34.631	1.00	51.94	C
ATOM	6660	C	ASP	F	336	42.146	69.642	-35.007	1.00	50.68	C
ATOM	6661	O	ASP	F	336	41.697	68.861	-34.176	1.00	50.39	O
ATOM	6662	CB	ASP	F	336	42.716	71.735	-33.786	1.00	52.17	C
ATOM	6663	CG	ASP	F	336	43.806	72.534	-33.113	1.00	52.82	C

ATOM	6664	OD1	ASP	F	336	44.685	71.904	-32.483	1.00	52.36	O
ATOM	6665	OD2	ASP	F	336	43.785	73.781	-33.216	1.00	52.92	O
ATOM	6666	N	ALA	F	337	41.688	69.714	-36.252	1.00	49.61	N
ATOM	6667	CA	ALA	F	337	40.614	68.846	-36.721	1.00	48.83	C
ATOM	6668	C	ALA	F	337	40.971	67.392	-36.450	1.00	48.43	C
ATOM	6669	O	ALA	F	337	42.145	67.018	-36.477	1.00	48.75	O
ATOM	6670	CB	ALA	F	337	40.381	69.056	-38.219	1.00	48.56	C
ATOM	6671	N	GLY	F	338	39.961	66.569	-36.188	1.00	47.59	N
ATOM	6672	CA	GLY	F	338	40.228	65.166	-35.925	1.00	46.62	C
ATOM	6673	C	GLY	F	338	39.363	64.546	-34.844	1.00	45.72	C
ATOM	6674	O	GLY	F	338	38.417	65.166	-34.346	1.00	44.55	O
ATOM	6675	N	GLU	F	339	39.707	63.315	-34.477	1.00	45.00	N
ATOM	6676	CA	GLU	F	339	38.975	62.560	-33.470	1.00	44.63	C
ATOM	6677	C	GLU	F	339	39.539	62.748	-32.054	1.00	43.23	C
ATOM	6678	O	GLU	F	339	40.725	62.501	-31.812	1.00	42.62	O
ATOM	6679	CB	GLU	F	339	39.001	61.075	-33.847	1.00	45.50	C
ATOM	6680	CG	GLU	F	339	38.029	60.198	-33.080	1.00	46.92	C
ATOM	6681	CD	GLU	F	339	38.054	58.768	-33.569	1.00	47.70	C
ATOM	6682	OE1	GLU	F	339	38.295	58.565	-34.775	1.00	48.96	O
ATOM	6683	OE2	GLU	F	339	37.821	57.845	-32.762	1.00	50.13	O
ATOM	6684	N	TYR	F	340	38.678	63.194	-31.136	1.00	42.09	N
ATOM	6685	CA	TYR	F	340	39.044	63.388	-29.732	1.00	40.89	C
ATOM	6686	C	TYR	F	340	38.365	62.319	-28.872	1.00	39.87	C
ATOM	6687	O	TYR	F	340	37.190	62.004	-29.067	1.00	40.00	O
ATOM	6688	CB	TYR	F	340	38.646	64.789	-29.262	1.00	41.78	C
ATOM	6689	CG	TYR	F	340	39.494	65.868	-29.898	1.00	43.99	C
ATOM	6690	CD1	TYR	F	340	39.330	66.207	-31.241	1.00	44.23	C
ATOM	6691	CD2	TYR	F	340	40.522	66.492	-29.180	1.00	44.40	C
ATOM	6692	CE1	TYR	F	340	40.171	67.132	-31.862	1.00	44.75	C
ATOM	6693	CE2	TYR	F	340	41.368	67.416	-29.787	1.00	45.18	C
ATOM	6694	CZ	TYR	F	340	41.190	67.730	-31.135	1.00	45.70	C
ATOM	6695	OH	TYR	F	340	42.047	68.613	-31.759	1.00	45.46	O
ATOM	6696	N	THR	F	341	39.104	61.770	-27.911	1.00	38.19	N
ATOM	6697	CA	THR	F	341	38.578	60.709	-27.065	1.00	36.42	C
ATOM	6698	C	THR	F	341	38.723	60.932	-25.570	1.00	35.91	C
ATOM	6699	O	THR	F	341	39.788	61.304	-25.091	1.00	35.96	O
ATOM	6700	CB	THR	F	341	39.293	59.378	-27.379	1.00	36.28	C
ATOM	6701	OG1	THR	F	341	39.008	58.985	-28.724	1.00	36.27	O
ATOM	6702	CG2	THR	F	341	38.866	58.284	-26.418	1.00	35.37	C
ATOM	6703	N	CYS	F	342	37.644	60.704	-24.833	1.00	35.02	N
ATOM	6704	CA	CYS	F	342	37.707	60.793	-23.382	1.00	34.15	C
ATOM	6705	C	CYS	F	342	37.847	59.344	-22.965	1.00	33.29	C
ATOM	6706	O	CYS	F	342	36.980	58.520	-23.268	1.00	34.08	O
ATOM	6707	CB	CYS	F	342	36.426	61.349	-22.777	1.00	33.61	C
ATOM	6708	SG	CYS	F	342	36.368	61.103	-20.981	1.00	33.75	S
ATOM	6709	N	LEU	F	343	38.937	59.025	-22.282	1.00	32.19	N
ATOM	6710	CA	LEU	F	343	39.173	57.658	-21.842	1.00	30.69	C
ATOM	6711	C	LEU	F	343	39.254	57.567	-20.320	1.00	30.23	C
ATOM	6712	O	LEU	F	343	40.019	58.291	-19.680	1.00	29.47	O
ATOM	6713	CB	LEU	F	343	40.446	57.130	-22.504	1.00	29.92	C
ATOM	6714	CG	LEU	F	343	40.882	55.695	-22.237	1.00	29.64	C
ATOM	6715	CD1	LEU	F	343	41.521	55.097	-23.494	1.00	29.38	C
ATOM	6716	CD2	LEU	F	343	41.847	55.684	-21.070	1.00	29.69	C
ATOM	6717	N	ALA	F	344	38.444	56.673	-19.753	1.00	29.04	N
ATOM	6718	CA	ALA	F	344	38.374	56.471	-18.319	1.00	28.61	C
ATOM	6719	C	ALA	F	344	38.688	55.031	-17.927	1.00	28.64	C
ATOM	6720	O	ALA	F	344	38.107	54.086	-18.463	1.00	29.32	O
ATOM	6721	CB	ALA	F	344	36.982	56.850	-17.818	1.00	27.84	C
ATOM	6722	N	GLY	F	345	39.600	54.861	-16.977	1.00	27.93	N
ATOM	6723	CA	GLY	F	345	39.933	53.517	-16.551	1.00	26.97	C
ATOM	6724	C	GLY	F	345	40.122	53.366	-15.052	1.00	26.41	C
ATOM	6725	O	GLY	F	345	40.504	54.320	-14.367	1.00	24.61	O
ATOM	6726	N	ASN	F	346	39.803	52.175	-14.544	1.00	25.72	N
ATOM	6727	CA	ASN	F	346	40.019	51.828	-13.135	1.00	27.21	C
ATOM	6728	C	ASN	F	346	40.644	50.424	-13.115	1.00	27.92	C
ATOM	6729	O	ASN	F	346	40.917	49.855	-14.176	1.00	26.78	O

Table 3

ATOM	6730	CB	ASN	F	346	38.722	51.866	-12.293	1.00	26.34	C
ATOM	6731	CG	ASN	F	346	37.637	50.911	-12.800	1.00	26.84	C
ATOM	6732	OD1	ASN	F	346	37.935	49.865	-13.375	1.00	24.75	O
ATOM	6733	ND2	ASN	F	346	36.368	51.269	-12.563	1.00	24.95	N
ATOM	6734	N	SER	F	347	40.879	49.866	-11.931	1.00	29.98	N
ATOM	6735	CA	SER	F	347	41.499	48.539	-11.837	1.00	32.45	C
ATOM	6736	C	SER	F	347	40.738	47.443	-12.569	1.00	33.80	C
ATOM	6737	O	SER	F	347	41.347	46.475	-13.005	1.00	34.43	O
ATOM	6738	CB	SER	F	347	41.695	48.102	-10.375	1.00	34.30	C
ATOM	6739	OG	SER	F	347	40.460	47.838	-9.725	1.00	37.06	O
ATOM	6740	N	ILE	F	348	39.419	47.582	-12.712	1.00	34.07	N
ATOM	6741	CA	ILE	F	348	38.638	46.556	-13.415	1.00	34.74	C
ATOM	6742	C	ILE	F	348	38.746	46.629	-14.942	1.00	34.67	C
ATOM	6743	O	ILE	F	348	38.858	45.603	-15.606	1.00	34.73	O
ATOM	6744	CB	ILE	F	348	37.117	46.608	-13.080	1.00	35.89	C
ATOM	6745	CG1	ILE	F	348	36.872	46.336	-11.594	1.00	36.06	C
ATOM	6746	CG2	ILE	F	348	36.370	45.572	-13.931	1.00	36.09	C
ATOM	6747	CD1	ILE	F	348	37.101	47.530	-10.702	1.00	38.46	C
ATOM	6748	N	GLY	F	349	38.690	47.834	-15.502	1.00	34.21	N
ATOM	6749	CA	GLY	F	349	38.766	47.970	-16.946	1.00	33.77	C
ATOM	6750	C	GLY	F	349	38.755	49.395	-17.477	1.00	33.75	C
ATOM	6751	O	GLY	F	349	38.798	50.361	-16.711	1.00	33.67	O
ATOM	6752	N	ILE	F	350	38.670	49.511	-18.801	1.00	33.27	N
ATOM	6753	CA	ILE	F	350	38.683	50.794	-19.498	1.00	33.45	C
ATOM	6754	C	ILE	F	350	37.449	51.057	-20.370	1.00	33.70	C
ATOM	6755	O	ILE	F	350	36.901	50.142	-20.983	1.00	33.76	O
ATOM	6756	CB	ILE	F	350	39.926	50.894	-20.411	1.00	33.49	C
ATOM	6757	CG1	ILE	F	350	41.198	50.775	-19.567	1.00	34.27	C
ATOM	6758	CG2	ILE	F	350	39.907	52.199	-21.187	1.00	34.40	C
ATOM	6759	CD1	ILE	F	350	42.482	50.712	-20.381	1.00	36.09	C
ATOM	6760	N	SER	F	351	37.029	52.321	-20.418	1.00	32.59	N
ATOM	6761	CA	SER	F	351	35.903	52.764	-21.240	1.00	32.30	C
ATOM	6762	C	SER	F	351	36.291	54.075	-21.921	1.00	32.43	C
ATOM	6763	O	SER	F	351	37.085	54.848	-21.378	1.00	31.37	O
ATOM	6764	CB	SER	F	351	34.655	53.006	-20.394	1.00	32.47	C
ATOM	6765	OG	SER	F	351	34.115	51.793	-19.920	1.00	34.26	O
ATOM	6766	N	PHE	F	352	35.735	54.329	-23.104	1.00	32.25	N
ATOM	6767	CA	PHE	F	352	36.039	55.561	-23.828	1.00	33.49	C
ATOM	6768	C	PHE	F	352	34.990	55.930	-24.873	1.00	33.58	C
ATOM	6769	O	PHE	F	352	34.419	55.057	-25.537	1.00	33.77	O
ATOM	6770	CB	PHE	F	352	37.414	55.455	-24.504	1.00	34.61	C
ATOM	6771	CG	PHE	F	352	37.525	54.317	-25.491	1.00	36.55	C
ATOM	6772	CD1	PHE	F	352	37.059	54.453	-26.797	1.00	38.08	C
ATOM	6773	CD2	PHE	F	352	38.093	53.109	-25.109	1.00	37.89	C
ATOM	6774	CE1	PHE	F	352	37.161	53.396	-27.711	1.00	39.20	C
ATOM	6775	CE2	PHE	F	352	38.201	52.047	-26.010	1.00	38.88	C
ATOM	6776	CZ	PHE	F	352	37.734	52.191	-27.313	1.00	39.32	C
ATOM	6777	N	HIS	F	353	34.737	57.227	-25.011	1.00	33.60	N
ATOM	6778	CA	HIS	F	353	33.787	57.731	-26.004	1.00	34.44	C
ATOM	6779	C	HIS	F	353	34.539	58.773	-26.831	1.00	35.35	C
ATOM	6780	O	HIS	F	353	35.359	59.528	-26.295	1.00	35.17	O
ATOM	6781	CB	HIS	F	353	32.559	58.386	-25.351	1.00	34.07	C
ATOM	6782	CG	HIS	F	353	31.579	57.416	-24.759	1.00	34.66	C
ATOM	6783	ND1	HIS	F	353	30.424	57.821	-24.121	1.00	33.93	N
ATOM	6784	CD2	HIS	F	353	31.571	56.059	-24.713	1.00	34.45	C
ATOM	6785	CE1	HIS	F	353	29.750	56.762	-23.711	1.00	32.42	C
ATOM	6786	NE2	HIS	F	353	30.424	55.682	-24.058	1.00	33.28	N
ATOM	6787	N	SER	F	354	34.261	58.806	-28.133	1.00	35.90	N
ATOM	6788	CA	SER	F	354	34.931	59.739	-29.032	1.00	36.78	N
ATOM	6789	C	SER	F	354	33.997	60.684	-29.777	1.00	37.44	C
ATOM	6790	O	SER	F	354	32.812	60.406	-29.968	1.00	36.86	O
ATOM	6791	CB	SER	F	354	35.770	58.963	-30.045	1.00	36.92	C
ATOM	6792	OG	SER	F	354	36.682	58.111	-29.379	1.00	38.08	O
ATOM	6793	N	ALA	F	355	34.551	61.816	-30.187	1.00	38.59	N
ATOM	6794	CA	ALA	F	355	33.801	62.813	-30.938	1.00	40.11	C
ATOM	6795	C	ALA	F	355	34.737	63.388	-31.994	1.00	41.10	C

Table 3

ATOM	6796	O	ALA	F	355	35.963	63.223	-31.910	1.00	41.45	O
ATOM	6797	CB	ALA	F	355	33.294	63.917	-30.008	1.00	39.80	C
ATOM	6798	N	TRP	F	356	34.166	64.055	-32.990	1.00	42.22	N
ATOM	6799	CA	TRP	F	356	34.970	64.638	-34.056	1.00	43.25	C
ATOM	6800	C	TRP	F	356	34.915	66.155	-34.069	1.00	43.67	C
ATOM	6801	O	TRP	F	356	33.884	66.760	-33.791	1.00	43.60	O
ATOM	6802	CB	TRP	F	356	34.523	64.108	-35.424	1.00	43.57	C
ATOM	6803	N	LEU	F	357	36.050	66.763	-34.383	1.00	44.42	N
ATOM	6804	CA	LEU	F	357	36.142	68.208	-34.472	1.00	45.85	C
ATOM	6805	C	LEU	F	357	36.305	68.570	-35.951	1.00	46.42	C
ATOM	6806	O	LEU	F	357	37.254	68.123	-36.605	1.00	46.43	O
ATOM	6807	CB	LEU	F	357	37.342	68.708	-33.656	1.00	46.03	C
ATOM	6808	CG	LEU	F	357	37.664	70.206	-33.652	1.00	46.53	C
ATOM	6809	CD1	LEU	F	357	38.430	70.582	-34.910	1.00	47.10	C
ATOM	6810	CD2	LEU	F	357	36.371	71.007	-33.527	1.00	46.18	C
ATOM	6811	N	THR	F	358	35.369	69.359	-36.473	1.00	46.98	N
ATOM	6812	CA	THR	F	358	35.417	69.782	-37.870	1.00	48.32	C
ATOM	6813	C	THR	F	358	35.811	71.256	-37.925	1.00	48.82	C
ATOM	6814	O	THR	F	358	35.167	72.098	-37.293	1.00	48.73	O
ATOM	6815	CB	THR	F	358	34.042	69.594	-38.558	1.00	48.28	C
ATOM	6816	N	VAL	F	359	36.874	71.559	-38.667	1.00	49.50	N
ATOM	6817	CA	VAL	F	359	37.359	72.929	-38.803	1.00	50.61	C
ATOM	6818	C	VAL	F	359	37.176	73.433	-40.236	1.00	51.09	C
ATOM	6819	O	VAL	F	359	37.789	72.839	-41.149	1.00	51.86	O
ATOM	6820	CB	VAL	F	359	38.858	73.036	-38.419	1.00	50.22	C
TER	6821		VAL	F	359						
ATOM	6822	N	LYS	G	151	32.215	55.396	-63.632	1.00	37.93	N
ATOM	6823	CA	LYS	G	151	30.832	55.516	-63.096	1.00	39.08	C
ATOM	6824	C	LYS	G	151	30.226	54.131	-62.828	1.00	39.20	C
ATOM	6825	O	LYS	G	151	30.223	53.272	-63.708	1.00	39.64	O
ATOM	6826	CB	LYS	G	151	29.955	56.276	-64.098	1.00	39.20	C
ATOM	6827	N	ARG	G	152	29.735	53.910	-61.610	1.00	38.69	N
ATOM	6828	CA	ARG	G	152	29.115	52.633	-61.251	1.00	38.05	C
ATOM	6829	C	ARG	G	152	28.255	52.699	-59.993	1.00	36.80	C
ATOM	6830	O	ARG	G	152	28.428	53.570	-59.139	1.00	36.86	O
ATOM	6831	CB	ARG	G	152	30.172	51.535	-61.076	1.00	38.73	C
ATOM	6832	CG	ARG	G	152	31.158	51.774	-59.951	1.00	39.40	C
ATOM	6833	CD	ARG	G	152	32.297	50.750	-59.968	1.00	40.41	C
ATOM	6834	NE	ARG	G	152	31.888	49.426	-59.504	1.00	39.75	N
ATOM	6835	CZ	ARG	G	152	32.740	48.476	-59.120	1.00	40.46	C
ATOM	6836	NH1	ARG	G	152	34.048	48.702	-59.147	1.00	40.01	N
ATOM	6837	NH2	ARG	G	152	32.289	47.303	-58.692	1.00	39.42	N
ATOM	6838	N	ALA	G	153	27.332	51.750	-59.901	1.00	35.27	N
ATOM	6839	CA	ALA	G	153	26.412	51.632	-58.780	1.00	34.38	C
ATOM	6840	C	ALA	G	153	27.175	51.335	-57.484	1.00	33.88	C
ATOM	6841	O	ALA	G	153	28.335	50.936	-57.519	1.00	33.72	O
ATOM	6842	CB	ALA	G	153	25.406	50.512	-59.066	1.00	32.93	C
ATOM	6843	N	PRO	G	154	26.520	51.508	-56.322	1.00	33.31	N
ATOM	6844	CA	PRO	G	154	27.177	51.247	-55.035	1.00	33.08	C
ATOM	6845	C	PRO	G	154	27.519	49.772	-54.870	1.00	33.05	C
ATOM	6846	O	PRO	G	154	26.828	48.901	-55.397	1.00	32.66	O
ATOM	6847	CB	PRO	G	154	26.136	51.697	-54.001	1.00	32.74	C
ATOM	6848	CG	PRO	G	154	25.197	52.610	-54.786	1.00	33.49	C
ATOM	6849	CD	PRO	G	154	25.120	51.911	-56.118	1.00	33.51	C
ATOM	6850	N	TYR	G	155	28.585	49.503	-54.131	1.00	32.79	N
ATOM	6851	CA	TYR	G	155	29.015	48.139	-53.876	1.00	33.67	C
ATOM	6852	C	TYR	G	155	29.807	48.061	-52.568	1.00	33.41	C
ATOM	6853	O	TYR	G	155	30.494	49.013	-52.205	1.00	33.82	O
ATOM	6854	CB	TYR	G	155	29.866	47.622	-55.045	1.00	33.62	C
ATOM	6855	CG	TYR	G	155	31.211	48.304	-55.215	1.00	34.56	C
ATOM	6856	CD1	TYR	G	155	31.304	49.566	-55.793	1.00	35.11	C
ATOM	6857	CD2	TYR	G	155	32.391	47.677	-54.811	1.00	35.26	C
ATOM	6858	CE1	TYR	G	155	32.536	50.189	-55.975	1.00	36.15	C
ATOM	6859	CE2	TYR	G	155	33.636	48.294	-54.986	1.00	35.66	C
ATOM	6860	CZ	TYR	G	155	33.695	49.551	-55.571	1.00	36.50	C
ATOM	6861	OH	TYR	G	155	34.905	50.172	-55.769	1.00	38.56	O

ATOM	6862	N	TRP	G	156	29.702	46.938	-51.861	1.00	33.53	N
ATOM	6863	CA	TRP	G	156	30.424	46.757	-50.596	1.00	34.85	C
ATOM	6864	C	TRP	G	156	31.911	46.557	-50.862	1.00	36.39	C
ATOM	6865	O	TRP	G	156	32.288	45.709	-51.664	1.00	36.88	O
ATOM	6866	CB	TRP	G	156	29.887	45.538	-49.827	1.00	32.98	C
ATOM	6867	CG	TRP	G	156	28.412	45.584	-49.563	1.00	31.32	C
ATOM	6868	CD1	TRP	G	156	27.509	44.581	-49.784	1.00	29.97	C
ATOM	6869	CD2	TRP	G	156	27.665	46.694	-49.055	1.00	29.82	C
ATOM	6870	NE1	TRP	G	156	26.245	45.001	-49.450	1.00	29.21	N
ATOM	6871	CE2	TRP	G	156	26.310	46.293	-48.999	1.00	29.86	C
ATOM	6872	CE3	TRP	G	156	28.007	47.987	-48.643	1.00	29.96	C
ATOM	6873	CZ2	TRP	G	156	25.294	47.142	-48.548	1.00	29.44	C
ATOM	6874	CZ3	TRP	G	156	26.992	48.840	-48.191	1.00	30.20	C
ATOM	6875	CH2	TRP	G	156	25.653	48.410	-48.149	1.00	30.96	C
ATOM	6876	N	THR	G	157	32.754	47.329	-50.182	1.00	38.26	N
ATOM	6877	CA	THR	G	157	34.203	47.226	-50.366	1.00	40.35	C
ATOM	6878	C	THR	G	157	34.873	46.270	-49.392	1.00	42.46	C
ATOM	6879	O	THR	G	157	36.078	46.046	-49.484	1.00	43.05	O
ATOM	6880	CB	THR	G	157	34.930	48.602	-50.213	1.00	39.64	C
ATOM	6881	OG1	THR	G	157	34.635	49.174	-48.933	1.00	38.76	O
ATOM	6882	CG2	THR	G	157	34.515	49.570	-51.308	1.00	39.60	C
ATOM	6883	N	ASN	G	158	34.103	45.706	-48.466	1.00	43.84	N
ATOM	6884	CA	ASN	G	158	34.670	44.792	-47.482	1.00	45.69	C
ATOM	6885	C	ASN	G	158	33.595	43.928	-46.828	1.00	45.42	C
ATOM	6886	O	ASN	G	158	33.163	44.209	-45.716	1.00	45.32	O
ATOM	6887	CB	ASN	G	158	35.410	45.601	-46.408	1.00	47.44	C
ATOM	6888	CG	ASN	G	158	36.131	44.719	-45.403	1.00	50.56	C
ATOM	6889	OD1	ASN	G	158	35.508	43.939	-44.678	1.00	52.48	O
ATOM	6890	ND2	ASN	G	158	37.457	44.834	-45.360	1.00	51.45	N
ATOM	6891	N	THR	G	159	33.178	42.874	-47.520	1.00	46.07	N
ATOM	6892	CA	THR	G	159	32.146	41.968	-47.020	1.00	46.62	C
ATOM	6893	C	THR	G	159	32.564	41.185	-45.781	1.00	46.29	C
ATOM	6894	O	THR	G	159	31.711	40.716	-45.029	1.00	46.39	O
ATOM	6895	CB	THR	G	159	31.751	40.953	-48.096	1.00	46.81	C
ATOM	6896	OG1	THR	G	159	32.913	40.207	-48.495	1.00	47.00	O
ATOM	6897	CG2	THR	G	159	31.172	41.663	-49.297	1.00	46.53	C
ATOM	6898	N	GLU	G	160	33.871	41.032	-45.579	1.00	46.49	N
ATOM	6899	CA	GLU	G	160	34.393	40.294	-44.429	1.00	46.06	C
ATOM	6900	C	GLU	G	160	33.858	40.887	-43.129	1.00	46.02	C
ATOM	6901	O	GLU	G	160	33.367	40.164	-42.264	1.00	45.54	O
ATOM	6902	CB	GLU	G	160	35.920	40.335	-44.413	1.00	46.21	C
ATOM	6903	N	LYS	G	161	33.951	42.209	-43.007	1.00	45.89	N
ATOM	6904	CA	LYS	G	161	33.483	42.926	-41.822	1.00	45.83	C
ATOM	6905	C	LYS	G	161	31.959	42.991	-41.700	1.00	45.38	C
ATOM	6906	O	LYS	G	161	31.445	43.581	-40.753	1.00	45.49	O
ATOM	6907	CB	LYS	G	161	34.026	44.363	-41.819	1.00	46.64	C
ATOM	6908	CG	LYS	G	161	35.547	44.475	-41.765	1.00	48.45	C
ATOM	6909	CD	LYS	G	161	35.984	45.937	-41.698	1.00	49.04	C
ATOM	6910	CE	LYS	G	161	37.496	46.060	-41.529	1.00	50.22	C
ATOM	6911	NZ	LYS	G	161	37.949	47.487	-41.526	1.00	50.00	N
ATOM	6912	N	MET	G	162	31.237	42.402	-42.650	1.00	44.59	N
ATOM	6913	CA	MET	G	162	29.773	42.436	-42.624	1.00	43.97	C
ATOM	6914	C	MET	G	162	29.138	41.062	-42.425	1.00	43.84	C
ATOM	6915	O	MET	G	162	27.921	40.954	-42.286	1.00	44.07	O
ATOM	6916	CB	MET	G	162	29.240	43.050	-43.928	1.00	42.91	C
ATOM	6917	CG	MET	G	162	29.687	44.487	-44.197	1.00	40.62	C
ATOM	6918	SD	MET	G	162	29.237	45.043	-45.875	1.00	39.77	S
ATOM	6919	CE	MET	G	162	27.459	45.242	-45.697	1.00	39.45	C
ATOM	6920	N	GLU	G	163	29.960	40.018	-42.405	1.00	44.03	N
ATOM	6921	CA	GLU	G	163	29.468	38.651	-42.247	1.00	43.93	C
ATOM	6922	C	GLU	G	163	28.762	38.384	-40.915	1.00	42.61	C
ATOM	6923	O	GLU	G	163	27.810	37.613	-40.870	1.00	42.58	O
ATOM	6924	CB	GLU	G	163	30.625	37.660	-42.431	1.00	45.99	C
ATOM	6925	CG	GLU	G	163	31.400	37.853	-43.733	1.00	49.23	C
ATOM	6926	CD	GLU	G	163	32.552	36.870	-43.893	1.00	51.45	C
ATOM	6927	OE1	GLU	G	163	33.169	36.510	-42.865	1.00	52.67	O

ATOM	6928	OE2	GLU	G	163	32.853	36.471	-45.045	1.00	52.43	O
ATOM	6929	N	LYS	G	164	29.234	39.008	-39.837	1.00	41.12	N
ATOM	6930	CA	LYS	G	164	28.631	38.836	-38.509	1.00	39.70	C
ATOM	6931	C	LYS	G	164	27.307	39.618	-38.484	1.00	38.39	C
ATOM	6932	O	LYS	G	164	27.299	40.830	-38.274	1.00	38.68	O
ATOM	6933	CB	LYS	G	164	29.591	39.363	-37.418	1.00	39.23	C
ATOM	6934	CG	LYS	G	164	29.140	39.093	-35.962	1.00	38.82	C
ATOM	6935	CD	LYS	G	164	30.121	39.706	-34.939	1.00	38.47	C
ATOM	6936	CE	LYS	G	164	29.622	39.572	-33.506	1.00	37.66	C
ATOM	6937	NZ	LYS	G	164	30.524	40.217	-32.490	1.00	37.42	N
ATOM	6938	N	ARG	G	165	26.192	38.924	-38.695	1.00	36.91	N
ATOM	6939	CA	ARG	G	165	24.884	39.580	-38.738	1.00	36.31	C
ATOM	6940	C	ARG	G	165	24.287	39.864	-37.370	1.00	35.60	C
ATOM	6941	O	ARG	G	165	23.715	40.934	-37.146	1.00	34.92	O
ATOM	6942	CB	ARG	G	165	23.899	38.746	-39.572	1.00	36.23	C
ATOM	6943	N	LEU	G	166	24.406	38.903	-36.460	1.00	35.23	N
ATOM	6944	CA	LEU	G	166	23.887	39.075	-35.113	1.00	34.50	C
ATOM	6945	C	LEU	G	166	24.981	39.588	-34.171	1.00	34.23	C
ATOM	6946	O	LEU	G	166	26.028	38.956	-34.004	1.00	34.46	O
ATOM	6947	CB	LEU	G	166	23.306	37.757	-34.596	1.00	34.17	C
ATOM	6948	CG	LEU	G	166	23.006	37.689	-33.090	1.00	35.92	C
ATOM	6949	CD1	LEU	G	166	22.123	38.851	-32.648	1.00	34.55	C
ATOM	6950	CD2	LEU	G	166	22.348	36.362	-32.777	1.00	35.42	C
ATOM	6951	N	HIS	G	167	24.733	40.753	-33.582	1.00	33.90	N
ATOM	6952	CA	HIS	G	167	25.652	41.369	-32.625	1.00	34.03	C
ATOM	6953	C	HIS	G	167	25.037	41.301	-31.238	1.00	34.08	C
ATOM	6954	O	HIS	G	167	24.132	42.078	-30.919	1.00	34.22	O
ATOM	6955	CB	HIS	G	167	25.897	42.842	-32.949	1.00	34.75	C
ATOM	6956	CG	HIS	G	167	26.975	43.069	-33.954	1.00	35.95	C
ATOM	6957	ND1	HIS	G	167	26.910	42.576	-35.239	1.00	36.61	N
ATOM	6958	CD2	HIS	G	167	28.160	43.715	-33.857	1.00	36.49	C
ATOM	6959	CE1	HIS	G	167	28.010	42.906	-35.891	1.00	36.40	C
ATOM	6960	NE2	HIS	G	167	28.786	43.597	-35.074	1.00	37.07	N
ATOM	6961	N	ALA	G	168	25.505	40.370	-30.418	1.00	33.10	N
ATOM	6962	CA	ALA	G	168	24.996	40.259	-29.061	1.00	32.60	C
ATOM	6963	C	ALA	G	168	26.108	40.801	-28.175	1.00	32.87	C
ATOM	6964	O	ALA	G	168	27.237	40.302	-28.212	1.00	33.14	O
ATOM	6965	CB	ALA	G	168	24.682	38.809	-28.725	1.00	33.23	C
ATOM	6966	N	VAL	G	169	25.799	41.838	-27.402	1.00	32.15	N
ATOM	6967	CA	VAL	G	169	26.798	42.454	-26.546	1.00	33.09	C
ATOM	6968	C	VAL	G	169	26.284	42.769	-25.156	1.00	33.02	C
ATOM	6969	O	VAL	G	169	25.087	42.930	-24.935	1.00	33.52	O
ATOM	6970	CB	VAL	G	169	27.341	43.768	-27.167	1.00	34.37	C
ATOM	6971	CG1	VAL	G	169	27.788	43.514	-28.609	1.00	35.12	C
ATOM	6972	CG2	VAL	G	169	26.268	44.858	-27.117	1.00	34.22	C
ATOM	6973	N	PRO	G	170	27.198	42.859	-24.192	1.00	32.91	N
ATOM	6974	CA	PRO	G	170	26.867	43.159	-22.800	1.00	32.72	C
ATOM	6975	C	PRO	G	170	26.401	44.612	-22.658	1.00	34.03	C
ATOM	6976	O	PRO	G	170	26.931	45.508	-23.333	1.00	33.46	O
ATOM	6977	CB	PRO	G	170	28.192	42.936	-22.075	1.00	32.27	C
ATOM	6978	CG	PRO	G	170	28.917	41.954	-22.950	1.00	33.28	C
ATOM	6979	CD	PRO	G	170	28.616	42.475	-24.323	1.00	33.23	C
ATOM	6980	N	ALA	G	171	25.430	44.840	-21.776	1.00	33.75	N
ATOM	6981	CA	ALA	G	171	24.909	46.177	-21.524	1.00	34.33	C
ATOM	6982	C	ALA	G	171	26.050	47.100	-21.120	1.00	34.09	C
ATOM	6983	O	ALA	G	171	27.022	46.646	-20.512	1.00	33.95	O
ATOM	6984	CB	ALA	G	171	23.859	46.130	-20.408	1.00	34.12	C
ATOM	6985	N	ALA	G	172	25.931	48.380	-21.487	1.00	33.12	N
ATOM	6986	CA	ALA	G	172	26.914	49.411	-21.157	1.00	33.26	C
ATOM	6987	C	ALA	G	172	28.082	49.537	-22.136	1.00	33.48	C
ATOM	6988	O	ALA	G	172	28.915	50.442	-22.014	1.00	34.33	O
ATOM	6989	CB	ALA	G	172	27.446	49.198	-19.729	1.00	32.38	C
ATOM	6990	N	ASN	G	173	28.155	48.634	-23.101	1.00	33.22	N
ATOM	6991	CA	ASN	G	173	29.225	48.679	-24.091	1.00	33.37	C
ATOM	6992	C	ASN	G	173	28.840	49.566	-25.272	1.00	32.71	C
ATOM	6993	O	ASN	G	173	27.684	49.962	-25.423	1.00	32.68	O

Table 3

ATOM	6994	CB	ASN	G	173	29.524	47.269	-24.629	1.00	34.62	C
ATOM	6995	CG	ASN	G	173	30.296	46.404	-23.640	1.00	34.28	C
ATOM	6996	OD1	ASN	G	173	30.170	46.554	-22.433	1.00	37.26	O
ATOM	6997	ND2	ASN	G	173	31.080	45.481	-24.158	1.00	34.66	N
ATOM	6998	N	THR	G	174	29.830	49.873	-26.102	1.00	31.59	N
ATOM	6999	CA	THR	G	174	29.627	50.659	-27.311	1.00	30.98	C
ATOM	7000	C	THR	G	174	29.460	49.669	-28.472	1.00	30.95	C
ATOM	7001	O	THR	G	174	30.179	48.669	-28.544	1.00	30.81	O
ATOM	7002	CB	THR	G	174	30.860	51.529	-27.626	1.00	30.59	C
ATOM	7003	OG1	THR	G	174	30.907	52.642	-26.730	1.00	31.56	O
ATOM	7004	CG2	THR	G	174	30.812	52.029	-29.074	1.00	29.92	C
ATOM	7005	N	VAL	G	175	28.523	49.939	-29.376	1.00	30.17	N
ATOM	7006	CA	VAL	G	175	28.311	49.068	-30.530	1.00	29.66	C
ATOM	7007	C	VAL	G	175	28.583	49.851	-31.809	1.00	28.77	C
ATOM	7008	O	VAL	G	175	28.223	51.024	-31.913	1.00	28.77	O
ATOM	7009	CB	VAL	G	175	26.853	48.534	-30.583	1.00	29.73	C
ATOM	7010	CG1	VAL	G	175	26.675	47.614	-31.785	1.00	30.00	C
ATOM	7011	CG2	VAL	G	175	26.530	47.784	-29.320	1.00	31.31	C
ATOM	7012	N	LYS	G	176	29.229	49.214	-32.776	1.00	28.41	N
ATOM	7013	CA	LYS	G	176	29.519	49.876	-34.046	1.00	28.60	C
ATOM	7014	C	LYS	G	176	29.178	48.979	-35.240	1.00	29.11	C
ATOM	7015	O	LYS	G	176	29.671	47.856	-35.342	1.00	28.32	O
ATOM	7016	CB	LYS	G	176	30.991	50.284	-34.117	1.00	29.21	C
ATOM	7017	N	PHE	G	177	28.313	49.473	-36.123	1.00	28.71	N
ATOM	7018	CA	PHE	G	177	27.929	48.736	-37.325	1.00	29.28	C
ATOM	7019	C	PHE	G	177	28.592	49.414	-38.521	1.00	29.86	C
ATOM	7020	O	PHE	G	177	28.617	50.645	-38.610	1.00	29.26	O
ATOM	7021	CB	PHE	G	177	26.401	48.741	-37.522	1.00	28.70	C
ATOM	7022	CG	PHE	G	177	25.641	47.975	-36.464	1.00	29.03	C
ATOM	7023	CD1	PHE	G	177	25.956	46.649	-36.186	1.00	28.61	C
ATOM	7024	CD2	PHE	G	177	24.617	48.578	-35.746	1.00	27.96	C
ATOM	7025	CE1	PHE	G	177	25.264	45.942	-35.210	1.00	28.90	C
ATOM	7026	CE2	PHE	G	177	23.921	47.881	-34.771	1.00	27.66	C
ATOM	7027	CZ	PHE	G	177	24.245	46.563	-34.502	1.00	28.37	C
ATOM	7028	N	ARG	G	178	29.127	48.617	-39.439	1.00	30.54	N
ATOM	7029	CA	ARG	G	178	29.780	49.169	-40.613	1.00	31.47	C
ATOM	7030	C	ARG	G	178	29.292	48.544	-41.914	1.00	30.95	C
ATOM	7031	O	ARG	G	178	28.922	47.374	-41.949	1.00	29.97	O
ATOM	7032	CB	ARG	G	178	31.298	48.984	-40.515	1.00	34.36	C
ATOM	7033	CG	ARG	G	178	31.931	49.644	-39.295	1.00	39.90	C
ATOM	7034	CD	ARG	G	178	33.447	49.738	-39.439	1.00	43.10	C
ATOM	7035	NE	ARG	G	178	33.818	50.394	-40.693	1.00	47.10	N
ATOM	7036	CZ	ARG	G	178	35.069	50.570	-41.119	1.00	49.58	C
ATOM	7037	NH1	ARG	G	178	36.096	50.141	-40.390	1.00	50.61	N
ATOM	7038	NH2	ARG	G	178	35.292	51.172	-42.284	1.00	50.68	N
ATOM	7039	N	CYS	G	179	29.300	49.348	-42.976	1.00	30.10	N
ATOM	7040	CA	CYS	G	179	28.925	48.904	-44.315	1.00	31.02	C
ATOM	7041	C	CYS	G	179	29.848	49.628	-45.305	1.00	31.31	C
ATOM	7042	O	CYS	G	179	29.406	50.479	-46.087	1.00	28.70	O
ATOM	7043	CB	CYS	G	179	27.453	49.233	-44.593	1.00	31.15	C
ATOM	7044	SG	CYS	G	179	26.323	48.376	-43.429	1.00	33.32	S
ATOM	7045	N	PRO	G	180	31.154	49.303	-45.268	1.00	31.92	N
ATOM	7046	CA	PRO	G	180	32.110	49.953	-46.173	1.00	32.72	C
ATOM	7047	C	PRO	G	180	31.664	49.828	-47.620	1.00	33.18	C
ATOM	7048	O	PRO	G	180	31.438	48.731	-48.125	1.00	33.64	O
ATOM	7049	CB	PRO	G	180	33.442	49.269	-45.843	1.00	32.69	C
ATOM	7050	CG	PRO	G	180	33.050	47.991	-45.187	1.00	33.71	C
ATOM	7051	CD	PRO	G	180	31.832	48.342	-44.386	1.00	31.74	C
ATOM	7052	N	ALA	G	181	31.507	50.974	-48.275	1.00	33.47	N
ATOM	7053	CA	ALA	G	181	31.027	50.985	-49.650	1.00	34.74	C
ATOM	7054	C	ALA	G	181	31.848	51.813	-50.628	1.00	35.80	C
ATOM	7055	O	ALA	G	181	32.599	52.709	-50.239	1.00	35.32	O
ATOM	7056	CB	ALA	G	181	29.575	51.473	-49.674	1.00	33.88	C
ATOM	7057	N	GLY	G	182	31.668	51.498	-51.909	1.00	36.73	N
ATOM	7058	CA	GLY	G	182	32.338	52.206	-52.983	1.00	37.08	C
ATOM	7059	C	GLY	G	182	31.282	52.606	-53.999	1.00	38.28	C

Table 3

ATOM	7060	O	GLY	G	182	30.121	52.197	-53.884	1.00	37.01	O
ATOM	7061	N	GLY	G	183	31.674	53.404	-54.989	1.00	38.76	N
ATOM	7062	CA	GLY	G	183	30.734	53.838	-56.010	1.00	39.76	C
ATOM	7063	C	GLY	G	183	31.086	55.189	-56.613	1.00	40.59	C
ATOM	7064	O	GLY	G	183	31.746	56.011	-55.979	1.00	40.19	O
ATOM	7065	N	ASN	G	184	30.636	55.424	-57.841	1.00	41.17	N
ATOM	7066	CA	ASN	G	184	30.909	56.678	-58.529	1.00	41.73	C
ATOM	7067	C	ASN	G	184	29.700	57.116	-59.342	1.00	41.90	C
ATOM	7068	O	ASN	G	184	29.334	56.478	-60.321	1.00	41.81	O
ATOM	7069	CB	ASN	G	184	32.140	56.527	-59.433	1.00	42.19	C
ATOM	7070	CG	ASN	G	184	32.410	57.766	-60.279	1.00	43.50	C
ATOM	7071	OD1	ASN	G	184	31.973	58.875	-59.953	1.00	44.29	O
ATOM	7072	ND2	ASN	G	184	33.147	57.581	-61.368	1.00	43.66	N
ATOM	7073	N	PRO	G	185	29.088	58.245	-58.962	1.00	42.45	N
ATOM	7074	CA	PRO	G	185	29.466	59.115	-57.846	1.00	43.00	C
ATOM	7075	C	PRO	G	185	29.365	58.488	-56.455	1.00	43.89	C
ATOM	7076	O	PRO	G	185	28.707	57.457	-56.261	1.00	44.36	O
ATOM	7077	CB	PRO	G	185	28.522	60.303	-58.012	1.00	43.19	C
ATOM	7078	CG	PRO	G	185	27.292	59.663	-58.551	1.00	43.35	C
ATOM	7079	CD	PRO	G	185	27.844	58.720	-59.594	1.00	42.63	C
ATOM	7080	N	MET	G	186	30.021	59.128	-55.492	1.00	44.05	N
ATOM	7081	CA	MET	G	186	30.020	58.666	-54.111	1.00	44.25	C
ATOM	7082	C	MET	G	186	28.606	58.465	-53.600	1.00	42.98	C
ATOM	7083	O	MET	G	186	27.810	59.403	-53.552	1.00	42.87	O
ATOM	7084	CB	MET	G	186	30.738	59.675	-53.214	1.00	46.35	C
ATOM	7085	CG	MET	G	186	32.139	59.258	-52.808	1.00	50.04	C
ATOM	7086	SD	MET	G	186	32.148	57.751	-51.802	1.00	52.71	S
ATOM	7087	CE	MET	G	186	32.923	56.587	-52.955	1.00	51.94	C
ATOM	7088	N	PRO	G	187	28.267	57.232	-53.213	1.00	41.91	N
ATOM	7089	CA	PRO	G	187	26.917	56.975	-52.708	1.00	41.20	C
ATOM	7090	C	PRO	G	187	26.649	57.562	-51.319	1.00	40.70	C
ATOM	7091	O	PRO	G	187	27.570	57.776	-50.530	1.00	39.93	O
ATOM	7092	CB	PRO	G	187	26.816	55.447	-52.737	1.00	41.16	C
ATOM	7093	CG	PRO	G	187	28.227	55.001	-52.572	1.00	41.50	C
ATOM	7094	CD	PRO	G	187	28.999	55.971	-53.438	1.00	41.38	C
ATOM	7095	N	THR	G	188	25.378	57.839	-51.044	1.00	40.29	N
ATOM	7096	CA	THR	G	188	24.976	58.375	-49.754	1.00	40.62	C
ATOM	7097	C	THR	G	188	24.623	57.203	-48.849	1.00	40.45	C
ATOM	7098	O	THR	G	188	24.425	56.084	-49.322	1.00	40.89	O
ATOM	7099	CB	THR	G	188	23.747	59.299	-49.892	1.00	40.91	C
ATOM	7100	OG1	THR	G	188	22.685	58.591	-50.544	1.00	41.24	O
ATOM	7101	CG2	THR	G	188	24.103	60.538	-50.704	1.00	40.28	C
ATOM	7102	N	MET	G	189	24.552	57.459	-47.551	1.00	40.54	N
ATOM	7103	CA	MET	G	189	24.218	56.414	-46.603	1.00	40.70	C
ATOM	7104	C	MET	G	189	23.158	56.852	-45.613	1.00	40.06	C
ATOM	7105	O	MET	G	189	23.178	57.983	-45.124	1.00	40.47	O
ATOM	7106	CB	MET	G	189	25.454	55.958	-45.836	1.00	43.01	C
ATOM	7107	CG	MET	G	189	25.120	54.977	-44.729	1.00	46.26	C
ATOM	7108	SD	MET	G	189	26.578	54.334	-43.921	1.00	51.42	S
ATOM	7109	CE	MET	G	189	26.573	52.656	-44.569	1.00	48.28	C
ATOM	7110	N	ARG	G	190	22.229	55.944	-45.331	1.00	38.37	N
ATOM	7111	CA	ARG	G	190	21.156	56.193	-44.379	1.00	37.86	C
ATOM	7112	C	ARG	G	190	20.976	54.940	-43.522	1.00	35.87	C
ATOM	7113	O	ARG	G	190	21.118	53.823	-44.029	1.00	35.22	O
ATOM	7114	CB	ARG	G	190	19.846	56.487	-45.108	1.00	39.91	C
ATOM	7115	CG	ARG	G	190	19.989	57.359	-46.335	1.00	44.33	C
ATOM	7116	CD	ARG	G	190	18.650	58.006	-46.693	1.00	47.36	C
ATOM	7117	NE	ARG	G	190	17.538	57.053	-46.736	1.00	49.72	N
ATOM	7118	CZ	ARG	G	190	17.388	56.103	-47.657	1.00	50.89	C
ATOM	7119	NH1	ARG	G	190	18.283	55.960	-48.627	1.00	51.57	N
ATOM	7120	NH2	ARG	G	190	16.329	55.303	-47.617	1.00	51.62	N
ATOM	7121	N	TRP	G	191	20.658	55.127	-42.242	1.00	33.21	N
ATOM	7122	CA	TRP	G	191	20.450	54.005	-41.329	1.00	32.38	C
ATOM	7123	C	TRP	G	191	19.009	53.896	-40.842	1.00	31.73	C
ATOM	7124	O	TRP	G	191	18.397	54.893	-40.474	1.00	32.66	O
ATOM	7125	CB	TRP	G	191	21.373	54.140	-40.118	1.00	32.19	C

Table 3

ATOM	7126	CG	TRP	G	191	22.800	53.886	-40.446	1.00	32.15	C
ATOM	7127	CD1	TRP	G	191	23.724	54.792	-40.894	1.00	32.51	C
ATOM	7128	CD2	TRP	G	191	23.468	52.627	-40.378	1.00	31.70	C
ATOM	7129	NE1	TRP	G	191	24.929	54.166	-41.108	1.00	32.76	N
ATOM	7130	CE2	TRP	G	191	24.798	52.837	-40.797	1.00	31.62	C
ATOM	7131	CE3	TRP	G	191	23.068	51.338	-40.007	1.00	31.89	C
ATOM	7132	CZ2	TRP	G	191	25.734	51.805	-40.848	1.00	31.49	C
ATOM	7133	CZ3	TRP	G	191	23.994	50.313	-40.058	1.00	30.94	C
ATOM	7134	CH2	TRP	G	191	25.317	50.554	-40.477	1.00	31.73	C
ATOM	7135	N	LEU	G	192	18.470	52.684	-40.827	1.00	30.78	N
ATOM	7136	CA	LEU	G	192	17.109	52.480	-40.368	1.00	31.16	C
ATOM	7137	C	LEU	G	192	17.086	51.589	-39.129	1.00	31.29	C
ATOM	7138	O	LEU	G	192	17.950	50.721	-38.956	1.00	31.14	O
ATOM	7139	CB	LEU	G	192	16.268	51.819	-41.468	1.00	31.89	C
ATOM	7140	CG	LEU	G	192	16.364	52.423	-42.873	1.00	32.22	C
ATOM	7141	CD1	LEU	G	192	15.550	51.569	-43.842	1.00	32.92	C
ATOM	7142	CD2	LEU	G	192	15.869	53.877	-42.859	1.00	31.73	C
ATOM	7143	N	LYS	G	193	16.111	51.824	-38.255	1.00	30.53	N
ATOM	7144	CA	LYS	G	193	15.942	50.994	-37.079	1.00	30.93	C
ATOM	7145	C	LYS	G	193	14.587	50.325	-37.276	1.00	31.82	C
ATOM	7146	O	LYS	G	193	13.568	51.007	-37.385	1.00	32.06	O
ATOM	7147	CB	LYS	G	193	15.939	51.812	-35.787	1.00	29.89	C
ATOM	7148	CG	LYS	G	193	15.739	50.917	-34.559	1.00	30.55	C
ATOM	7149	CD	LYS	G	193	15.637	51.684	-33.249	1.00	31.57	C
ATOM	7150	CE	LYS	G	193	15.409	50.732	-32.072	1.00	31.81	C
ATOM	7151	NZ	LYS	G	193	15.123	51.443	-30.793	1.00	32.09	N
ATOM	7152	N	ASN	G	194	14.580	48.998	-37.327	1.00	32.57	N
ATOM	7153	CA	ASN	G	194	13.350	48.248	-37.535	1.00	34.51	C
ATOM	7154	C	ASN	G	194	12.611	48.741	-38.785	1.00	35.41	C
ATOM	7155	O	ASN	G	194	11.406	49.008	-38.743	1.00	34.59	O
ATOM	7156	CB	ASN	G	194	12.430	48.361	-36.315	1.00	35.04	C
ATOM	7157	CG	ASN	G	194	13.044	47.770	-35.072	1.00	36.73	C
ATOM	7158	OD1	ASN	G	194	13.762	46.756	-35.131	1.00	36.07	O
ATOM	7159	ND2	ASN	G	194	12.760	48.387	-33.926	1.00	36.25	N
ATOM	7160	N	GLY	G	195	13.357	48.879	-39.881	1.00	35.42	N
ATOM	7161	CA	GLY	G	195	12.792	49.307	-41.150	1.00	35.86	C
ATOM	7162	C	GLY	G	195	12.275	50.730	-41.289	1.00	36.25	C
ATOM	7163	O	GLY	G	195	11.630	51.046	-42.287	1.00	36.76	O
ATOM	7164	N	LYS	G	196	12.542	51.591	-40.313	1.00	36.25	N
ATOM	7165	CA	LYS	G	196	12.081	52.973	-40.384	1.00	36.21	C
ATOM	7166	C	LYS	G	196	13.219	53.913	-40.029	1.00	36.72	C
ATOM	7167	O	LYS	G	196	14.177	53.515	-39.371	1.00	36.32	O
ATOM	7168	CB	LYS	G	196	10.905	53.205	-39.422	1.00	36.17	C
ATOM	7169	N	GLU	G	197	13.104	55.163	-40.462	1.00	37.23	N
ATOM	7170	CA	GLU	G	197	14.127	56.157	-40.185	1.00	38.95	C
ATOM	7171	C	GLU	G	197	14.525	56.124	-38.715	1.00	38.68	C
ATOM	7172	O	GLU	G	197	13.670	56.072	-37.833	1.00	38.67	O
ATOM	7173	CB	GLU	G	197	13.627	57.554	-40.539	1.00	40.62	C
ATOM	7174	CG	GLU	G	197	14.594	58.641	-40.127	1.00	44.22	C
ATOM	7175	CD	GLU	G	197	14.039	60.023	-40.356	1.00	46.08	C
ATOM	7176	OE1	GLU	G	197	12.815	60.199	-40.157	1.00	46.92	O
ATOM	7177	OE2	GLU	G	197	14.825	60.930	-40.718	1.00	46.94	O
ATOM	7178	N	PHE	G	198	15.834	56.146	-38.474	1.00	38.58	N
ATOM	7179	CA	PHE	G	198	16.411	56.120	-37.131	1.00	38.05	C
ATOM	7180	C	PHE	G	198	16.716	57.575	-36.776	1.00	38.47	C
ATOM	7181	O	PHE	G	198	17.557	58.210	-37.418	1.00	38.57	O
ATOM	7182	CB	PHE	G	198	17.714	55.307	-37.156	1.00	38.22	C
ATOM	7183	CG	PHE	G	198	18.332	55.058	-35.794	1.00	38.04	C
ATOM	7184	CD1	PHE	G	198	19.673	54.676	-35.695	1.00	37.65	C
ATOM	7185	CD2	PHE	G	198	17.579	55.153	-34.628	1.00	37.37	C
ATOM	7186	CE1	PHE	G	198	20.256	54.392	-34.455	1.00	37.94	C
ATOM	7187	CE2	PHE	G	198	18.147	54.870	-33.384	1.00	38.19	C
ATOM	7188	CZ	PHE	G	198	19.488	54.487	-33.295	1.00	38.35	C
ATOM	7189	N	LYS	G	199	16.035	58.096	-35.760	1.00	38.43	N
ATOM	7190	CA	LYS	G	199	16.215	59.479	-35.332	1.00	39.45	C
ATOM	7191	C	LYS	G	199	16.990	59.590	-34.016	1.00	39.07	C

Table 3

ATOM	7192	O	LYS	G	199	16.950	58.680	-33.190	1.00	38.70	O
ATOM	7193	CB	LYS	G	199	14.847	60.142	-35.143	1.00	41.28	C
ATOM	7194	CG	LYS	G	199	13.883	60.012	-36.318	1.00	43.58	C
ATOM	7195	CD	LYS	G	199	12.657	60.899	-36.082	1.00	45.84	C
ATOM	7196	CE	LYS	G	199	11.660	60.854	-37.242	1.00	46.93	C
ATOM	7197	NZ	LYS	G	199	10.503	61.786	-37.021	1.00	47.65	N
ATOM	7198	N	GLN	G	200	17.677	60.714	-33.819	1.00	38.63	N
ATOM	7199	CA	GLN	G	200	18.447	60.941	-32.597	1.00	38.68	C
ATOM	7200	C	GLN	G	200	17.597	60.759	-31.338	1.00	39.23	C
ATOM	7201	O	GLN	G	200	18.073	60.228	-30.337	1.00	39.32	O
ATOM	7202	CB	GLN	G	200	19.047	62.355	-32.573	1.00	38.64	C
ATOM	7203	CG	GLN	G	200	20.185	62.623	-33.561	1.00	38.51	C
ATOM	7204	CD	GLN	G	200	21.456	61.819	-33.266	1.00	39.24	C
ATOM	7205	OE1	GLN	G	200	21.841	61.627	-32.104	1.00	38.68	O
ATOM	7206	NE2	GLN	G	200	22.119	61.363	-34.320	1.00	38.44	N
ATOM	7207	N	GLU	G	201	16.340	61.191	-31.380	1.00	39.57	N
ATOM	7208	CA	GLU	G	201	15.485	61.075	-30.201	1.00	39.85	C
ATOM	7209	C	GLU	G	201	14.982	59.656	-29.939	1.00	39.23	C
ATOM	7210	O	GLU	G	201	14.292	59.411	-28.952	1.00	38.51	O
ATOM	7211	CB	GLU	G	201	14.283	62.026	-30.299	1.00	41.90	C
ATOM	7212	CG	GLU	G	201	13.335	61.713	-31.445	1.00	45.60	C
ATOM	7213	CD	GLU	G	201	13.526	62.640	-32.627	1.00	47.66	C
ATOM	7214	OE1	GLU	G	201	14.694	62.871	-33.025	1.00	48.51	O
ATOM	7215	OE2	GLU	G	201	12.500	63.132	-33.158	1.00	49.36	O
ATOM	7216	N	HIS	G	202	15.335	58.716	-30.809	1.00	39.29	N
ATOM	7217	CA	HIS	G	202	14.892	57.339	-30.637	1.00	38.89	C
ATOM	7218	C	HIS	G	202	15.560	56.598	-29.466	1.00	38.13	C
ATOM	7219	O	HIS	G	202	15.130	55.499	-29.099	1.00	37.78	O
ATOM	7220	CB	HIS	G	202	15.095	56.552	-31.934	1.00	40.98	C
ATOM	7221	CG	HIS	G	202	14.088	56.862	-33.000	1.00	43.91	C
ATOM	7222	ND1	HIS	G	202	12.890	57.500	-32.740	1.00	43.84	N
ATOM	7223	CD2	HIS	G	202	14.085	56.586	-34.328	1.00	44.08	C
ATOM	7224	CE1	HIS	G	202	12.197	57.602	-33.860	1.00	44.30	C
ATOM	7225	NE2	HIS	G	202	12.899	57.056	-34.838	1.00	44.94	N
ATOM	7226	N	ARG	G	203	16.602	57.195	-28.883	1.00	37.18	N
ATOM	7227	CA	ARG	G	203	17.312	56.589	-27.748	1.00	36.74	C
ATOM	7228	C	ARG	G	203	18.032	57.642	-26.908	1.00	36.51	C
ATOM	7229	O	ARG	G	203	18.412	58.695	-27.411	1.00	35.86	O
ATOM	7230	CB	ARG	G	203	18.345	55.561	-28.236	1.00	37.01	C
ATOM	7231	N	ILE	G	204	18.224	57.358	-25.624	1.00	36.85	N
ATOM	7232	CA	ILE	G	204	18.925	58.297	-24.749	1.00	37.60	C
ATOM	7233	C	ILE	G	204	20.325	58.518	-25.334	1.00	37.66	C
ATOM	7234	O	ILE	G	204	21.041	57.553	-25.629	1.00	37.54	O
ATOM	7235	CB	ILE	G	204	19.074	57.736	-23.302	1.00	38.46	C
ATOM	7236	CG1	ILE	G	204	17.712	57.316	-22.748	1.00	39.56	C
ATOM	7237	CG2	ILE	G	204	19.677	58.800	-22.375	1.00	39.44	C
ATOM	7238	CD1	ILE	G	204	16.709	58.438	-22.672	1.00	40.21	C
ATOM	7239	N	GLY	G	205	20.708	59.778	-25.515	1.00	37.64	N
ATOM	7240	CA	GLY	G	205	22.021	60.082	-26.062	1.00	37.39	C
ATOM	7241	C	GLY	G	205	22.170	59.934	-27.567	1.00	36.81	C
ATOM	7242	O	GLY	G	205	23.245	60.185	-28.109	1.00	37.10	O
ATOM	7243	N	GLY	G	206	21.101	59.525	-28.246	1.00	36.83	N
ATOM	7244	CA	GLY	G	206	21.154	59.373	-29.692	1.00	35.77	C
ATOM	7245	C	GLY	G	206	22.266	58.480	-30.216	1.00	35.37	C
ATOM	7246	O	GLY	G	206	22.643	57.496	-29.581	1.00	33.92	O
ATOM	7247	N	TYR	G	207	22.794	58.831	-31.383	1.00	35.95	N
ATOM	7248	CA	TYR	G	207	23.841	58.042	-32.003	1.00	36.65	C
ATOM	7249	C	TYR	G	207	24.812	58.905	-32.809	1.00	37.12	C
ATOM	7250	O	TYR	G	207	24.598	60.104	-32.982	1.00	36.47	O
ATOM	7251	CB	TYR	G	207	23.207	56.980	-32.907	1.00	37.46	C
ATOM	7252	CG	TYR	G	207	22.328	57.548	-33.999	1.00	38.06	C
ATOM	7253	CD1	TYR	G	207	20.953	57.716	-33.813	1.00	38.07	C
ATOM	7254	CD2	TYR	G	207	22.880	57.942	-35.218	1.00	38.57	C
ATOM	7255	CE1	TYR	G	207	20.148	58.268	-34.827	1.00	38.11	C
ATOM	7256	CE2	TYR	G	207	22.097	58.496	-36.227	1.00	38.57	C
ATOM	7257	CZ	TYR	G	207	20.737	58.661	-36.031	1.00	39.30	C

ATOM	7258	OH	TYR	G	207	19.994	59.266	-37.028	1.00	40.42	O
ATOM	7259	N	LYS	G	208	25.880	58.284	-33.300	1.00	37.02	N
ATOM	7260	CA	LYS	G	208	26.874	58.997	-34.088	1.00	38.49	C
ATOM	7261	C	LYS	G	208	27.150	58.251	-35.396	1.00	39.32	C
ATOM	7262	O	LYS	G	208	27.144	57.019	-35.437	1.00	38.90	O
ATOM	7263	CB	LYS	G	208	28.174	59.150	-33.285	1.00	38.12	C
ATOM	7264	CG	LYS	G	208	28.008	59.852	-31.932	1.00	38.59	C
ATOM	7265	CD	LYS	G	208	29.342	59.926	-31.187	1.00	37.31	C
ATOM	7266	CE	LYS	G	208	29.213	60.616	-29.838	1.00	37.57	C
ATOM	7267	NZ	LYS	G	208	30.504	60.595	-29.087	1.00	36.21	N
ATOM	7268	N	VAL	G	209	27.385	59.007	-36.464	1.00	40.76	N
ATOM	7269	CA	VAL	G	209	27.668	58.431	-37.776	1.00	42.75	C
ATOM	7270	C	VAL	G	209	28.932	59.040	-38.363	1.00	44.10	C
ATOM	7271	O	VAL	G	209	29.083	60.260	-38.399	1.00	44.90	O
ATOM	7272	CB	VAL	G	209	26.500	58.673	-38.774	1.00	42.78	C
ATOM	7273	CG1	VAL	G	209	26.929	58.275	-40.184	1.00	43.23	C
ATOM	7274	CG2	VAL	G	209	25.276	57.864	-38.360	1.00	42.54	C
ATOM	7275	N	ARG	G	210	29.844	58.184	-38.809	1.00	45.61	N
ATOM	7276	CA	ARG	G	210	31.092	58.632	-39.422	1.00	46.69	C
ATOM	7277	C	ARG	G	210	31.070	58.207	-40.890	1.00	47.12	C
ATOM	7278	O	ARG	G	210	31.463	57.091	-41.222	1.00	47.50	O
ATOM	7279	CB	ARG	G	210	32.297	57.997	-38.716	1.00	46.16	C
ATOM	7280	N	ASN	G	211	30.596	59.097	-41.759	1.00	47.91	N
ATOM	7281	CA	ASN	G	211	30.513	58.819	-43.191	1.00	48.52	C
ATOM	7282	C	ASN	G	211	31.803	58.251	-43.771	1.00	48.05	C
ATOM	7283	O	ASN	G	211	31.772	57.335	-44.592	1.00	47.81	O
ATOM	7284	CB	ASN	G	211	30.132	60.088	-43.950	1.00	49.91	C
ATOM	7285	CG	ASN	G	211	28.724	60.549	-43.636	1.00	51.73	C
ATOM	7286	OD1	ASN	G	211	27.756	59.808	-43.832	1.00	53.25	O
ATOM	7287	ND2	ASN	G	211	28.597	61.779	-43.146	1.00	52.48	N
ATOM	7288	N	GLN	G	212	32.937	58.791	-43.336	1.00	47.63	N
ATOM	7289	CA	GLN	G	212	34.231	58.327	-43.823	1.00	46.56	C
ATOM	7290	C	GLN	G	212	34.453	56.835	-43.559	1.00	45.40	C
ATOM	7291	O	GLN	G	212	35.177	56.172	-44.296	1.00	46.16	O
ATOM	7292	CB	GLN	G	212	35.354	59.149	-43.185	1.00	46.95	C
ATOM	7293	N	HIS	G	213	33.823	56.305	-42.514	1.00	43.32	N
ATOM	7294	CA	HIS	G	213	33.971	54.894	-42.180	1.00	41.09	C
ATOM	7295	C	HIS	G	213	32.695	54.078	-42.437	1.00	38.71	C
ATOM	7296	O	HIS	G	213	32.653	52.878	-42.149	1.00	37.89	O
ATOM	7297	CB	HIS	G	213	34.401	54.757	-40.712	1.00	41.66	C
ATOM	7298	N	TRP	G	214	31.675	54.732	-42.991	1.00	36.16	N
ATOM	7299	CA	TRP	G	214	30.386	54.094	-43.288	1.00	34.68	C
ATOM	7300	C	TRP	G	214	29.892	53.347	-42.056	1.00	33.39	C
ATOM	7301	O	TRP	G	214	29.474	52.189	-42.132	1.00	32.36	O
ATOM	7302	CB	TRP	G	214	30.523	53.123	-44.465	1.00	34.65	C
ATOM	7303	CG	TRP	G	214	31.183	53.713	-45.677	1.00	35.68	C
ATOM	7304	CD1	TRP	G	214	32.509	53.657	-45.992	1.00	35.69	C
ATOM	7305	CD2	TRP	G	214	30.552	54.467	-46.723	1.00	35.33	C
ATOM	7306	NE1	TRP	G	214	32.744	54.329	-47.168	1.00	36.32	N
ATOM	7307	CE2	TRP	G	214	31.561	54.837	-47.637	1.00	35.75	C
ATOM	7308	CE3	TRP	G	214	29.232	54.867	-46.975	1.00	36.44	C
ATOM	7309	CZ2	TRP	G	214	31.293	55.592	-48.790	1.00	35.48	C
ATOM	7310	CZ3	TRP	G	214	28.963	55.620	-48.128	1.00	36.36	C
ATOM	7311	CH2	TRP	G	214	29.993	55.972	-49.017	1.00	35.54	C
ATOM	7312	N	SER	G	215	29.918	54.032	-40.918	1.00	32.58	N
ATOM	7313	CA	SER	G	215	29.522	53.412	-39.665	1.00	31.88	C
ATOM	7314	C	SER	G	215	28.440	54.113	-38.852	1.00	31.15	C
ATOM	7315	O	SER	G	215	28.246	55.321	-38.949	1.00	31.31	O
ATOM	7316	CB	SER	G	215	30.758	53.283	-38.786	1.00	32.21	C
ATOM	7317	OG	SER	G	215	31.302	54.577	-38.596	1.00	32.73	O
ATOM	7318	N	LEU	G	216	27.761	53.319	-38.028	1.00	30.57	N
ATOM	7319	CA	LEU	G	216	26.729	53.798	-37.111	1.00	29.12	C
ATOM	7320	C	LEU	G	216	27.234	53.394	-35.724	1.00	27.81	C
ATOM	7321	O	LEU	G	216	27.577	52.231	-35.506	1.00	26.76	O
ATOM	7322	CB	LEU	G	216	25.382	53.120	-37.391	1.00	29.27	C
ATOM	7323	CG	LEU	G	216	24.282	53.271	-36.319	1.00	29.94	C

ATOM	7324	CD1	LEU	G	216	23.772	54.696	-36.292	1.00	28.63	C
ATOM	7325	CD2	LEU	G	216	23.128	52.337	-36.620	1.00	28.50	C
ATOM	7326	N	ILE	G	217	27.277	54.347	-34.798	1.00	27.49	N
ATOM	7327	CA	ILE	G	217	27.759	54.084	-33.433	1.00	27.69	C
ATOM	7328	C	ILE	G	217	26.751	54.413	-32.329	1.00	28.49	C
ATOM	7329	O	ILE	G	217	26.180	55.515	-32.293	1.00	27.54	O
ATOM	7330	CB	ILE	G	217	29.057	54.888	-33.145	1.00	29.03	C
ATOM	7331	CG1	ILE	G	217	30.190	54.373	-34.025	1.00	29.08	C
ATOM	7332	CG2	ILE	G	217	29.447	54.777	-31.676	1.00	28.67	C
ATOM	7333	CD1	ILE	G	217	31.406	55.232	-33.972	1.00	30.72	C
ATOM	7334	N	MET	G	218	26.534	53.452	-31.430	1.00	28.14	N
ATOM	7335	CA	MET	G	218	25.636	53.638	-30.295	1.00	29.05	C
ATOM	7336	C	MET	G	218	26.429	53.316	-29.019	1.00	30.12	C
ATOM	7337	O	MET	G	218	26.945	52.206	-28.856	1.00	29.60	O
ATOM	7338	CB	MET	G	218	24.391	52.736	-30.397	1.00	28.75	C
ATOM	7339	CG	MET	G	218	23.349	53.184	-31.437	1.00	30.25	C
ATOM	7340	SD	MET	G	218	21.994	51.978	-31.723	1.00	31.16	S
ATOM	7341	CE	MET	G	218	22.916	50.662	-32.561	1.00	31.17	C
ATOM	7342	N	GLU	G	219	26.534	54.300	-28.132	1.00	29.92	N
ATOM	7343	CA	GLU	G	219	27.273	54.150	-26.882	1.00	30.46	C
ATOM	7344	C	GLU	G	219	26.370	53.744	-25.722	1.00	31.49	C
ATOM	7345	O	GLU	G	219	25.172	54.041	-25.718	1.00	32.13	O
ATOM	7346	CB	GLU	G	219	27.991	55.463	-26.546	1.00	31.02	C
ATOM	7347	CG	GLU	G	219	28.927	55.949	-27.656	1.00	30.31	C
ATOM	7348	CD	GLU	G	219	29.071	57.461	-27.685	1.00	31.67	C
ATOM	7349	OE1	GLU	G	219	28.054	58.150	-27.465	1.00	30.77	O
ATOM	7350	OE2	GLU	G	219	30.189	57.964	-27.951	1.00	32.04	O
ATOM	7351	N	SER	G	220	26.953	53.035	-24.756	1.00	31.30	N
ATOM	7352	CA	SER	G	220	26.254	52.572	-23.561	1.00	31.39	C
ATOM	7353	C	SER	G	220	24.907	51.908	-23.847	1.00	31.55	C
ATOM	7354	O	SER	G	220	23.869	52.337	-23.324	1.00	31.32	O
ATOM	7355	CB	SER	G	220	26.054	53.752	-22.615	1.00	31.91	C
ATOM	7356	OG	SER	G	220	27.249	54.506	-22.530	1.00	33.28	O
ATOM	7357	N	VAL	G	221	24.923	50.843	-24.643	1.00	30.54	N
ATOM	7358	CA	VAL	G	221	23.681	50.167	-24.998	1.00	31.16	C
ATOM	7359	C	VAL	G	221	22.921	49.566	-23.818	1.00	32.05	C
ATOM	7360	O	VAL	G	221	23.508	49.195	-22.792	1.00	31.21	O
ATOM	7361	CB	VAL	G	221	23.908	49.060	-26.065	1.00	29.94	C
ATOM	7362	CG1	VAL	G	221	24.596	49.656	-27.279	1.00	30.06	C
ATOM	7363	CG2	VAL	G	221	24.719	47.916	-25.486	1.00	30.26	C
ATOM	7364	N	VAL	G	222	21.602	49.472	-23.985	1.00	32.24	N
ATOM	7365	CA	VAL	G	222	20.721	48.926	-22.965	1.00	32.79	C
ATOM	7366	C	VAL	G	222	19.743	47.970	-23.629	1.00	33.65	C
ATOM	7367	O	VAL	G	222	19.616	47.951	-24.855	1.00	33.38	O
ATOM	7368	CB	VAL	G	222	19.942	50.049	-22.257	1.00	32.50	C
ATOM	7369	CG1	VAL	G	222	20.904	50.904	-21.451	1.00	32.43	C
ATOM	7370	CG2	VAL	G	222	19.224	50.913	-23.282	1.00	32.13	C
ATOM	7371	N	PRO	G	223	19.043	47.151	-22.832	1.00	34.22	N
ATOM	7372	CA	PRO	G	223	18.076	46.193	-23.376	1.00	34.37	C
ATOM	7373	C	PRO	G	223	17.116	46.751	-24.430	1.00	34.67	C
ATOM	7374	O	PRO	G	223	16.834	46.079	-25.418	1.00	35.07	O
ATOM	7375	CB	PRO	G	223	17.353	45.699	-22.128	1.00	34.63	C
ATOM	7376	CG	PRO	G	223	18.475	45.652	-21.127	1.00	34.57	C
ATOM	7377	CD	PRO	G	223	19.208	46.963	-21.376	1.00	34.70	C
ATOM	7378	N	SER	G	224	16.619	47.973	-24.240	1.00	34.52	N
ATOM	7379	CA	SER	G	224	15.690	48.548	-25.214	1.00	34.43	C
ATOM	7380	C	SER	G	224	16.277	48.819	-26.607	1.00	34.27	C
ATOM	7381	O	SER	G	224	15.532	49.086	-27.550	1.00	33.93	O
ATOM	7382	CB	SER	G	224	15.047	49.830	-24.659	1.00	35.29	C
ATOM	7383	OG	SER	G	224	16.016	50.750	-24.181	1.00	37.46	O
ATOM	7384	N	ASP	G	225	17.602	48.745	-26.748	1.00	34.38	N
ATOM	7385	CA	ASP	G	225	18.246	48.966	-28.047	1.00	33.59	C
ATOM	7386	C	ASP	G	225	18.114	47.746	-28.976	1.00	33.29	C
ATOM	7387	O	ASP	G	225	18.444	47.810	-30.160	1.00	33.56	O
ATOM	7388	CB	ASP	G	225	19.731	49.312	-27.860	1.00	33.90	C
ATOM	7389	CG	ASP	G	225	19.940	50.698	-27.272	1.00	34.04	C

Table 3

ATOM	7390	OD1	ASP	G	225	19.312	51.661	-27.760	1.00	34.35	O
ATOM	7391	OD2	ASP	G	225	20.744	50.832	-26.328	1.00	33.86	O
ATOM	7392	N	LYS	G	226	17.634	46.630	-28.436	1.00	33.97	N
ATOM	7393	CA	LYS	G	226	17.460	45.415	-29.238	1.00	33.58	C
ATOM	7394	C	LYS	G	226	16.601	45.713	-30.452	1.00	32.76	C
ATOM	7395	O	LYS	G	226	15.591	46.410	-30.348	1.00	33.24	O
ATOM	7396	CB	LYS	G	226	16.782	44.311	-28.420	1.00	34.76	C
ATOM	7397	N	GLY	G	227	17.002	45.187	-31.604	1.00	31.91	N
ATOM	7398	CA	GLY	G	227	16.240	45.404	-32.818	1.00	31.44	C
ATOM	7399	C	GLY	G	227	17.077	45.219	-34.073	1.00	32.34	C
ATOM	7400	O	GLY	G	227	18.197	44.694	-34.010	1.00	32.28	O
ATOM	7401	N	ASN	G	228	16.533	45.643	-35.211	1.00	31.51	N
ATOM	7402	CA	ASN	G	228	17.231	45.543	-36.485	1.00	31.35	C
ATOM	7403	C	ASN	G	228	17.734	46.889	-36.940	1.00	30.18	C
ATOM	7404	O	ASN	G	228	17.019	47.885	-36.845	1.00	31.12	O
ATOM	7405	CB	ASN	G	228	16.316	44.998	-37.568	1.00	32.51	C
ATOM	7406	CG	ASN	G	228	15.927	43.586	-37.311	1.00	34.95	C
ATOM	7407	OD1	ASN	G	228	16.696	42.829	-36.730	1.00	35.67	O
ATOM	7408	ND2	ASN	G	228	14.732	43.206	-37.745	1.00	36.62	N
ATOM	7409	N	TYR	G	229	18.965	46.911	-37.436	1.00	28.15	N
ATOM	7410	CA	TYR	G	229	19.568	48.135	-37.933	1.00	28.01	C
ATOM	7411	C	TYR	G	229	20.032	47.899	-39.365	1.00	27.46	C
ATOM	7412	O	TYR	G	229	20.885	47.053	-39.630	1.00	26.42	O
ATOM	7413	CB	TYR	G	229	20.721	48.568	-37.021	1.00	28.59	C
ATOM	7414	CG	TYR	G	229	20.240	48.915	-35.629	1.00	29.21	C
ATOM	7415	CD1	TYR	G	229	20.033	47.925	-34.672	1.00	29.80	C
ATOM	7416	CD2	TYR	G	229	19.915	50.229	-35.293	1.00	30.39	C
ATOM	7417	CE1	TYR	G	229	19.505	48.236	-33.415	1.00	30.65	C
ATOM	7418	CE2	TYR	G	229	19.391	50.553	-34.040	1.00	29.83	C
ATOM	7419	CZ	TYR	G	229	19.188	49.552	-33.108	1.00	30.76	C
ATOM	7420	OH	TYR	G	229	18.659	49.867	-31.872	1.00	32.33	O
ATOM	7421	N	THR	G	230	19.449	48.666	-40.282	1.00	26.96	N
ATOM	7422	CA	THR	G	230	19.729	48.536	-41.705	1.00	26.33	C
ATOM	7423	C	THR	G	230	20.432	49.731	-42.326	1.00	26.67	C
ATOM	7424	O	THR	G	230	20.049	50.878	-42.097	1.00	26.83	O
ATOM	7425	CB	THR	G	230	18.405	48.316	-42.456	1.00	27.36	C
ATOM	7426	OG1	THR	G	230	17.794	47.102	-41.986	1.00	27.11	O
ATOM	7427	CG2	THR	G	230	18.624	48.262	-43.966	1.00	26.38	C
ATOM	7428	N	CYS	G	231	21.463	49.466	-43.120	1.00	27.19	N
ATOM	7429	CA	CYS	G	231	22.168	50.549	-43.802	1.00	27.64	C
ATOM	7430	C	CYS	G	231	21.734	50.506	-45.268	1.00	27.64	C
ATOM	7431	O	CYS	G	231	21.714	49.442	-45.889	1.00	27.09	O
ATOM	7432	CB	CYS	G	231	23.687	50.362	-43.715	1.00	29.07	C
ATOM	7433	SG	CYS	G	231	24.273	48.894	-44.592	1.00	31.30	S
ATOM	7434	N	VAL	G	232	21.361	51.665	-45.802	1.00	28.82	N
ATOM	7435	CA	VAL	G	232	20.943	51.801	-47.200	1.00	29.71	C
ATOM	7436	C	VAL	G	232	21.951	52.730	-47.897	1.00	30.46	C
ATOM	7437	O	VAL	G	232	22.177	53.858	-47.457	1.00	29.38	O
ATOM	7438	CB	VAL	G	232	19.520	52.421	-47.317	1.00	29.90	C
ATOM	7439	CG1	VAL	G	232	19.074	52.407	-48.776	1.00	29.33	C
ATOM	7440	CG2	VAL	G	232	18.529	51.641	-46.448	1.00	29.15	C
ATOM	7441	N	VAL	G	233	22.557	52.247	-48.978	1.00	30.43	N
ATOM	7442	CA	VAL	G	233	23.561	53.021	-49.695	1.00	31.82	C
ATOM	7443	C	VAL	G	233	23.155	53.193	-51.154	1.00	32.71	C
ATOM	7444	O	VAL	G	233	22.792	52.223	-51.819	1.00	33.76	O
ATOM	7445	CB	VAL	G	233	24.949	52.333	-49.554	1.00	30.72	C
ATOM	7446	CG1	VAL	G	233	26.000	53.059	-50.359	1.00	30.29	C
ATOM	7447	CG2	VAL	G	233	25.353	52.328	-48.070	1.00	30.62	C
ATOM	7448	N	GLU	G	234	23.201	54.424	-51.653	1.00	33.51	N
ATOM	7449	CA	GLU	G	234	22.775	54.655	-53.025	1.00	35.10	C
ATOM	7450	C	GLU	G	234	23.320	55.855	-53.796	1.00	34.23	C
ATOM	7451	O	GLU	G	234	23.822	56.826	-53.229	1.00	34.30	O
ATOM	7452	CB	GLU	G	234	21.246	54.698	-53.068	1.00	37.35	C
ATOM	7453	CG	GLU	G	234	20.648	55.776	-52.190	1.00	40.83	C
ATOM	7454	CD	GLU	G	234	19.198	55.499	-51.810	1.00	44.47	C
ATOM	7455	OE1	GLU	G	234	18.643	56.288	-51.012	1.00	44.70	O

Table 3

ATOM	7456	OE2	GLU	G	234	18.616	54.496	-52.295	1.00	44.42	O
ATOM	7457	N	ASN	G	235	23.221	55.737	-55.116	1.00	34.32	N
ATOM	7458	CA	ASN	G	235	23.623	56.772	-56.065	1.00	34.06	C
ATOM	7459	C	ASN	G	235	22.688	56.604	-57.264	1.00	34.55	C
ATOM	7460	O	ASN	G	235	21.763	55.780	-57.216	1.00	33.77	O
ATOM	7461	CB	ASN	G	235	25.116	56.656	-56.474	1.00	32.59	C
ATOM	7462	CG	ASN	G	235	25.446	55.400	-57.288	1.00	32.92	C
ATOM	7463	OD1	ASN	G	235	24.578	54.736	-57.843	1.00	32.10	O
ATOM	7464	ND2	ASN	G	235	26.738	55.095	-57.382	1.00	32.83	N
ATOM	7465	N	GLU	G	236	22.917	57.366	-58.330	1.00	35.00	N
ATOM	7466	CA	GLU	G	236	22.070	57.312	-59.524	1.00	35.86	C
ATOM	7467	C	GLU	G	236	21.952	55.943	-60.214	1.00	36.60	C
ATOM	7468	O	GLU	G	236	20.968	55.684	-60.910	1.00	36.50	O
ATOM	7469	CB	GLU	G	236	22.558	58.340	-60.557	1.00	35.14	C
ATOM	7470	N	TYR	G	237	22.944	55.073	-60.028	1.00	36.16	N
ATOM	7471	CA	TYR	G	237	22.919	53.755	-60.665	1.00	36.25	C
ATOM	7472	C	TYR	G	237	22.503	52.583	-59.780	1.00	35.75	C
ATOM	7473	O	TYR	G	237	22.574	51.436	-60.215	1.00	35.24	O
ATOM	7474	CB	TYR	G	237	24.284	53.425	-61.279	1.00	36.51	C
ATOM	7475	CG	TYR	G	237	24.811	54.520	-62.154	1.00	38.18	C
ATOM	7476	CD1	TYR	G	237	25.831	55.355	-61.708	1.00	38.95	C
ATOM	7477	CD2	TYR	G	237	24.239	54.775	-63.400	1.00	37.89	C
ATOM	7478	CE1	TYR	G	237	26.270	56.421	-62.478	1.00	40.57	C
ATOM	7479	CE2	TYR	G	237	24.661	55.836	-64.174	1.00	39.83	C
ATOM	7480	CZ	TYR	G	237	25.680	56.663	-63.705	1.00	41.20	C
ATOM	7481	OH	TYR	G	237	26.095	57.745	-64.450	1.00	42.74	O
ATOM	7482	N	GLY	G	238	22.082	52.842	-58.548	1.00	34.93	N
ATOM	7483	CA	GLY	G	238	21.677	51.723	-57.719	1.00	34.22	C
ATOM	7484	C	GLY	G	238	21.493	51.987	-56.242	1.00	33.59	C
ATOM	7485	O	GLY	G	238	21.898	53.026	-55.719	1.00	34.04	O
ATOM	7486	N	SER	G	239	20.887	51.011	-55.575	1.00	32.54	N
ATOM	7487	CA	SER	G	239	20.616	51.076	-54.146	1.00	32.28	C
ATOM	7488	C	SER	G	239	20.735	49.675	-53.544	1.00	31.72	C
ATOM	7489	O	SER	G	239	20.105	48.735	-54.029	1.00	31.16	O
ATOM	7490	CB	SER	G	239	19.210	51.617	-53.908	1.00	32.19	C
ATOM	7491	OG	SER	G	239	18.886	51.583	-52.532	1.00	34.32	O
ATOM	7492	N	ILE	G	240	21.551	49.538	-52.498	1.00	30.28	N
ATOM	7493	CA	ILE	G	240	21.747	48.247	-51.835	1.00	28.68	C
ATOM	7494	C	ILE	G	240	21.654	48.410	-50.321	1.00	28.11	C
ATOM	7495	O	ILE	G	240	21.912	49.483	-49.798	1.00	28.31	O
ATOM	7496	CB	ILE	G	240	23.128	47.621	-52.181	1.00	27.78	C
ATOM	7497	CG1	ILE	G	240	24.268	48.533	-51.702	1.00	27.45	C
ATOM	7498	CG2	ILE	G	240	23.219	47.361	-53.663	1.00	26.24	C
ATOM	7499	CD1	ILE	G	240	25.679	48.024	-52.049	1.00	26.01	C
ATOM	7500	N	ASN	G	241	21.279	47.343	-49.623	1.00	28.01	N
ATOM	7501	CA	ASN	G	241	21.152	47.393	-48.170	1.00	27.97	C
ATOM	7502	C	ASN	G	241	21.662	46.128	-47.474	1.00	27.84	C
ATOM	7503	O	ASN	G	241	21.829	45.082	-48.098	1.00	27.55	O
ATOM	7504	CB	ASN	G	241	19.693	47.622	-47.773	1.00	27.81	C
ATOM	7505	CG	ASN	G	241	18.771	46.552	-48.317	1.00	29.79	C
ATOM	7506	OD1	ASN	G	241	18.122	46.736	-49.362	1.00	31.16	O
ATOM	7507	ND2	ASN	G	241	18.717	45.419	-47.630	1.00	28.96	N
ATOM	7508	N	HIS	G	242	21.884	46.245	-46.167	1.00	27.95	N
ATOM	7509	CA	HIS	G	242	22.367	45.146	-45.334	1.00	27.69	C
ATOM	7510	C	HIS	G	242	21.748	45.312	-43.949	1.00	26.95	C
ATOM	7511	O	HIS	G	242	21.585	46.421	-43.474	1.00	26.62	O
ATOM	7512	CB	HIS	G	242	23.888	45.223	-45.226	1.00	28.03	C
ATOM	7513	CG	HIS	G	242	24.485	44.178	-44.337	1.00	29.55	C
ATOM	7514	ND1	HIS	G	242	24.727	42.889	-44.762	1.00	29.30	N
ATOM	7515	CD2	HIS	G	242	24.886	44.231	-43.043	1.00	29.73	C
ATOM	7516	CE1	HIS	G	242	25.252	42.193	-43.769	1.00	29.52	C
ATOM	7517	NE2	HIS	G	242	25.359	42.983	-42.716	1.00	29.51	N
ATOM	7518	N	THR	G	243	21.418	44.214	-43.286	1.00	27.81	N
ATOM	7519	CA	THR	G	243	20.789	44.322	-41.983	1.00	28.78	C
ATOM	7520	C	THR	G	243	21.498	43.589	-40.853	1.00	29.90	C
ATOM	7521	O	THR	G	243	21.907	42.432	-40.994	1.00	29.15	O

Table 3

ATOM	7522	CB	THR	G	243	19.318	43.848	-42.051	1.00	29.58	C
ATOM	7523	OG1	THR	G	243	18.584	44.714	-42.931	1.00	28.66	O
ATOM	7524	CG2	THR	G	243	18.681	43.873	-40.670	1.00	27.96	C
ATOM	7525	N	TYR	G	244	21.639	44.300	-39.736	1.00	30.30	N
ATOM	7526	CA	TYR	G	244	22.269	43.789	-38.530	1.00	32.40	C
ATOM	7527	C	TYR	G	244	21.192	43.618	-37.463	1.00	34.01	C
ATOM	7528	O	TYR	G	244	20.216	44.379	-37.433	1.00	33.67	O
ATOM	7529	CB	TYR	G	244	23.304	44.789	-38.004	1.00	33.37	C
ATOM	7530	CG	TYR	G	244	24.582	44.848	-38.803	1.00	34.79	C
ATOM	7531	CD1	TYR	G	244	24.986	46.029	-39.422	1.00	34.97	C
ATOM	7532	CD2	TYR	G	244	25.396	43.719	-38.935	1.00	34.57	C
ATOM	7533	CE1	TYR	G	244	26.180	46.089	-40.158	1.00	35.52	C
ATOM	7534	CE2	TYR	G	244	26.584	43.764	-39.661	1.00	35.11	C
ATOM	7535	CZ	TYR	G	244	26.970	44.950	-40.269	1.00	35.69	C
ATOM	7536	OH	TYR	G	244	28.147	45.001	-40.973	1.00	35.60	O
ATOM	7537	N	HIS	G	245	21.376	42.635	-36.590	1.00	34.92	N
ATOM	7538	CA	HIS	G	245	20.442	42.396	-35.491	1.00	36.03	C
ATOM	7539	C	HIS	G	245	21.217	42.634	-34.196	1.00	35.26	C
ATOM	7540	O	HIS	G	245	22.309	42.093	-34.019	1.00	34.39	O
ATOM	7541	CB	HIS	G	245	19.919	40.953	-35.545	1.00	38.91	C
ATOM	7542	CG	HIS	G	245	19.299	40.594	-36.864	1.00	42.97	C
ATOM	7543	ND1	HIS	G	245	18.057	41.050	-37.249	1.00	45.08	N
ATOM	7544	CD2	HIS	G	245	19.777	39.882	-37.912	1.00	44.45	C
ATOM	7545	CE1	HIS	G	245	17.797	40.643	-38.483	1.00	44.93	C
ATOM	7546	NE2	HIS	G	245	18.831	39.935	-38.908	1.00	45.92	N
ATOM	7547	N	LEU	G	246	20.667	43.456	-33.306	1.00	34.64	N
ATOM	7548	CA	LEU	G	246	21.333	43.748	-32.043	1.00	34.91	C
ATOM	7549	C	LEU	G	246	20.606	43.181	-30.825	1.00	35.69	C
ATOM	7550	O	LEU	G	246	19.384	43.278	-30.713	1.00	35.58	O
ATOM	7551	CB	LEU	G	246	21.494	45.260	-31.862	1.00	35.44	C
ATOM	7552	CG	LEU	G	246	22.063	45.734	-30.517	1.00	36.47	C
ATOM	7553	CD1	LEU	G	246	23.469	45.183	-30.336	1.00	36.34	C
ATOM	7554	CD2	LEU	G	246	22.076	47.253	-30.460	1.00	35.04	C
ATOM	7555	N	ASP	G	247	21.369	42.587	-29.913	1.00	36.18	N
ATOM	7556	CA	ASP	G	247	20.816	42.051	-28.681	1.00	37.30	C
ATOM	7557	C	ASP	G	247	21.720	42.476	-27.527	1.00	37.80	C
ATOM	7558	O	ASP	G	247	22.947	42.445	-27.638	1.00	37.40	O
ATOM	7559	CB	ASP	G	247	20.715	40.532	-28.732	1.00	39.92	C
ATOM	7560	CG	ASP	G	247	19.307	40.044	-28.452	1.00	41.73	C
ATOM	7561	OD1	ASP	G	247	18.633	39.593	-29.404	1.00	42.63	O
ATOM	7562	OD2	ASP	G	247	18.871	40.127	-27.282	1.00	42.31	O
ATOM	7563	N	VAL	G	248	21.111	42.891	-26.423	1.00	37.48	N
ATOM	7564	CA	VAL	G	248	21.876	43.331	-25.268	1.00	37.97	C
ATOM	7565	C	VAL	G	248	21.620	42.443	-24.059	1.00	38.56	C
ATOM	7566	O	VAL	G	248	20.473	42.099	-23.762	1.00	38.74	O
ATOM	7567	CB	VAL	G	248	21.530	44.796	-24.904	1.00	38.63	C
ATOM	7568	CG1	VAL	G	248	22.373	45.261	-23.724	1.00	37.78	C
ATOM	7569	CG2	VAL	G	248	21.775	45.695	-26.110	1.00	38.73	C
ATOM	7570	N	VAL	G	249	22.696	42.078	-23.364	1.00	38.33	N
ATOM	7571	CA	VAL	G	249	22.595	41.228	-22.186	1.00	38.35	C
ATOM	7572	C	VAL	G	249	23.224	41.900	-20.964	1.00	38.07	C
ATOM	7573	O	VAL	G	249	24.374	42.338	-21.000	1.00	37.99	O
ATOM	7574	CB	VAL	G	249	23.286	39.868	-22.422	1.00	39.59	C
ATOM	7575	CG1	VAL	G	249	23.101	38.982	-21.209	1.00	40.52	C
ATOM	7576	CG2	VAL	G	249	22.708	39.192	-23.662	1.00	39.36	C
ATOM	7577	N	GLU	G	250	22.462	41.991	-19.880	1.00	37.91	N
ATOM	7578	CA	GLU	G	250	22.974	42.605	-18.665	1.00	37.55	C
ATOM	7579	C	GLU	G	250	23.748	41.569	-17.876	1.00	37.14	C
ATOM	7580	O	GLU	G	250	23.253	40.469	-17.621	1.00	36.70	O
ATOM	7581	CB	GLU	G	250	21.837	43.154	-17.798	1.00	39.01	C
ATOM	7582	CG	GLU	G	250	21.151	44.384	-18.372	1.00	41.78	C
ATOM	7583	CD	GLU	G	250	19.883	44.749	-17.620	1.00	43.62	C
ATOM	7584	OE1	GLU	G	250	18.917	43.948	-17.651	1.00	44.58	O
ATOM	7585	OE2	GLU	G	250	19.858	45.831	-17.000	1.00	44.67	O
ATOM	7586	N	ARG	G	251	24.972	41.916	-17.501	1.00	35.77	N
ATOM	7587	CA	ARG	G	251	25.795	41.008	-16.730	1.00	35.07	C

Table 3

ATOM	7588	C	ARG	G	251	25.875	41.462	-15.282	1.00	35.93	C
ATOM	7589	O	ARG	G	251	25.762	42.656	-14.981	1.00	36.05	O
ATOM	7590	CB	ARG	G	251	27.218	40.907	-17.314	1.00	33.17	C
ATOM	7591	CG	ARG	G	251	27.311	40.440	-18.771	1.00	30.95	C
ATOM	7592	CD	ARG	G	251	26.466	39.204	-19.068	1.00	29.63	C
ATOM	7593	NE	ARG	G	251	26.826	38.035	-18.268	1.00	27.31	N
ATOM	7594	CZ	ARG	G	251	27.877	37.261	-18.507	1.00	28.64	C
ATOM	7595	NH1	ARG	G	251	28.683	37.530	-19.528	1.00	29.00	N
ATOM	7596	NH2	ARG	G	251	28.120	36.206	-17.732	1.00	28.89	N
ATOM	7597	N	SER	G	252	26.071	40.477	-14.404	1.00	36.15	N
ATOM	7598	CA	SER	G	252	26.204	40.717	-12.978	1.00	36.84	C
ATOM	7599	C	SER	G	252	27.497	40.097	-12.438	1.00	37.21	C
ATOM	7600	O	SER	G	252	27.544	38.919	-12.112	1.00	37.64	O
ATOM	7601	CB	SER	G	252	25.020	40.122	-12.217	1.00	36.67	C
ATOM	7602	OG	SER	G	252	25.289	40.169	-10.825	1.00	38.12	O
ATOM	7603	N	PRO	G	253	28.562	40.897	-12.319	1.00	37.48	N
ATOM	7604	CA	PRO	G	253	29.847	40.407	-11.816	1.00	37.21	C
ATOM	7605	C	PRO	G	253	29.925	40.268	-10.288	1.00	37.55	C
ATOM	7606	O	PRO	G	253	30.909	40.681	-9.678	1.00	37.38	O
ATOM	7607	CB	PRO	G	253	30.820	41.462	-12.329	1.00	37.06	C
ATOM	7608	CG	PRO	G	253	30.026	42.718	-12.121	1.00	37.41	C
ATOM	7609	CD	PRO	G	253	28.639	42.336	-12.640	1.00	37.48	C
ATOM	7610	N	HIS	G	254	28.907	39.686	-9.667	1.00	37.32	N
ATOM	7611	CA	HIS	G	254	28.918	39.538	-8.214	1.00	37.41	C
ATOM	7612	C	HIS	G	254	29.057	38.081	-7.782	1.00	35.91	C
ATOM	7613	O	HIS	G	254	28.788	37.161	-8.558	1.00	34.13	O
ATOM	7614	CB	HIS	G	254	27.624	40.098	-7.606	1.00	39.83	C
ATOM	7615	CG	HIS	G	254	27.299	41.496	-8.033	1.00	43.05	C
ATOM	7616	ND1	HIS	G	254	26.937	41.818	-9.325	1.00	44.40	N
ATOM	7617	CD2	HIS	G	254	27.256	42.655	-7.332	1.00	44.17	C
ATOM	7618	CE1	HIS	G	254	26.680	43.114	-9.400	1.00	44.30	C
ATOM	7619	NE2	HIS	G	254	26.866	43.644	-8.205	1.00	44.52	N
ATOM	7620	N	ARG	G	255	29.493	37.874	-6.544	1.00	34.42	N
ATOM	7621	CA	ARG	G	255	29.588	36.515	-6.015	1.00	34.16	C
ATOM	7622	C	ARG	G	255	28.121	36.111	-5.763	1.00	32.44	C
ATOM	7623	O	ARG	G	255	27.234	36.966	-5.773	1.00	31.37	O
ATOM	7624	CB	ARG	G	255	30.409	36.501	-4.717	1.00	35.31	C
ATOM	7625	CG	ARG	G	255	29.797	37.258	-3.545	1.00	39.42	C
ATOM	7626	CD	ARG	G	255	30.819	37.447	-2.406	1.00	43.10	C
ATOM	7627	NE	ARG	G	255	30.168	37.650	-1.109	1.00	47.00	N
ATOM	7628	CZ	ARG	G	255	29.348	38.659	-0.816	1.00	47.84	C
ATOM	7629	NH1	ARG	G	255	29.068	39.587	-1.722	1.00	48.73	N
ATOM	7630	NH2	ARG	G	255	28.776	38.722	0.379	1.00	49.38	N
ATOM	7631	N	PRO	G	256	27.844	34.815	-5.537	1.00	31.88	N
ATOM	7632	CA	PRO	G	256	26.449	34.411	-5.304	1.00	31.34	C
ATOM	7633	C	PRO	G	256	25.767	35.139	-4.142	1.00	30.86	C
ATOM	7634	O	PRO	G	256	26.384	35.404	-3.113	1.00	30.32	O
ATOM	7635	CB	PRO	G	256	26.559	32.906	-5.026	1.00	30.69	C
ATOM	7636	CG	PRO	G	256	27.860	32.509	-5.643	1.00	30.92	C
ATOM	7637	CD	PRO	G	256	28.749	33.677	-5.306	1.00	31.69	C
ATOM	7638	N	ILE	G	257	24.487	35.452	-4.318	1.00	30.45	N
ATOM	7639	CA	ILE	G	257	23.695	36.120	-3.290	1.00	31.29	C
ATOM	7640	C	ILE	G	257	22.616	35.161	-2.753	1.00	31.09	C
ATOM	7641	O	ILE	G	257	21.915	34.514	-3.529	1.00	30.89	O
ATOM	7642	CB	ILE	G	257	23.023	37.378	-3.880	1.00	33.41	C
ATOM	7643	CG1	ILE	G	257	24.071	38.488	-4.033	1.00	34.71	C
ATOM	7644	CG2	ILE	G	257	21.853	37.830	-3.008	1.00	33.59	C
ATOM	7645	CD1	ILE	G	257	23.570	39.723	-4.772	1.00	36.23	C
ATOM	7646	N	LEU	G	258	22.496	35.044	-1.434	1.00	30.76	N
ATOM	7647	CA	LEU	G	258	21.473	34.171	-0.853	1.00	30.21	C
ATOM	7648	C	LEU	G	258	20.361	34.984	-0.214	1.00	30.61	C
ATOM	7649	O	LEU	G	258	20.577	36.106	0.249	1.00	30.83	O
ATOM	7650	CB	LEU	G	258	22.045	33.250	0.226	1.00	29.39	C
ATOM	7651	CG	LEU	G	258	23.313	32.433	0.000	1.00	30.50	C
ATOM	7652	CD1	LEU	G	258	23.439	31.416	1.128	1.00	29.89	C
ATOM	7653	CD2	LEU	G	258	23.274	31.740	-1.323	1.00	31.22	C

Table 3

ATOM	7654	N	GLN	G	259	19.169	34.400	-0.176	1.00	30.63	N
ATOM	7655	CA	GLN	G	259	18.007	35.044	0.430	1.00	30.35	C
ATOM	7656	C	GLN	G	259	18.169	35.089	1.957	1.00	29.51	C
ATOM	7657	O	GLN	G	259	18.481	34.082	2.585	1.00	28.56	O
ATOM	7658	CB	GLN	G	259	16.742	34.248	0.056	1.00	30.66	C
ATOM	7659	CG	GLN	G	259	15.410	34.765	0.645	1.00	31.63	C
ATOM	7660	CD	GLN	G	259	14.201	33.887	0.256	1.00	32.94	C
ATOM	7661	OE1	GLN	G	259	14.012	33.548	-0.915	1.00	30.95	O
ATOM	7662	NE2	GLN	G	259	13.380	33.529	1.245	1.00	32.93	N
ATOM	7663	N	ALA	G	260	17.941	36.258	2.545	1.00	29.30	N
ATOM	7664	CA	ALA	G	260	18.036	36.430	3.992	1.00	30.20	C
ATOM	7665	C	ALA	G	260	17.020	35.540	4.715	1.00	30.29	C
ATOM	7666	O	ALA	G	260	15.900	35.402	4.261	1.00	30.30	O
ATOM	7667	CB	ALA	G	260	17.772	37.890	4.344	1.00	29.19	C
ATOM	7668	N	GLY	G	261	17.410	34.944	5.838	1.00	30.71	N
ATOM	7669	CA	GLY	G	261	16.485	34.103	6.580	1.00	31.64	C
ATOM	7670	C	GLY	G	261	16.518	32.621	6.241	1.00	32.25	C
ATOM	7671	O	GLY	G	261	15.954	31.802	6.970	1.00	32.41	O
ATOM	7672	N	LEU	G	262	17.179	32.267	5.144	1.00	32.52	N
ATOM	7673	CA	LEU	G	262	17.267	30.871	4.733	1.00	32.03	C
ATOM	7674	C	LEU	G	262	18.710	30.396	4.629	1.00	32.97	C
ATOM	7675	O	LEU	G	262	19.570	31.082	4.067	1.00	32.65	O
ATOM	7676	CB	LEU	G	262	16.563	30.672	3.387	1.00	31.14	C
ATOM	7677	CG	LEU	G	262	15.043	30.883	3.387	1.00	31.83	C
ATOM	7678	CD1	LEU	G	262	14.494	30.812	1.956	1.00	29.95	C
ATOM	7679	CD2	LEU	G	262	14.391	29.819	4.274	1.00	30.39	C
ATOM	7680	N	PRO	G	263	18.996	29.203	5.159	1.00	33.16	N
ATOM	7681	CA	PRO	G	263	18.042	28.315	5.835	1.00	34.27	C
ATOM	7682	C	PRO	G	263	17.585	28.826	7.205	1.00	34.96	C
ATOM	7683	O	PRO	G	263	18.212	29.698	7.802	1.00	35.11	O
ATOM	7684	CB	PRO	G	263	18.812	26.999	5.920	1.00	33.84	C
ATOM	7685	CG	PRO	G	263	20.232	27.461	6.068	1.00	33.03	C
ATOM	7686	CD	PRO	G	263	20.318	28.568	5.048	1.00	33.06	C
ATOM	7687	N	ALA	G	264	16.480	28.281	7.698	1.00	36.21	N
ATOM	7688	CA	ALA	G	264	15.943	28.691	8.989	1.00	37.11	C
ATOM	7689	C	ALA	G	264	16.253	27.668	10.069	1.00	37.99	C
ATOM	7690	O	ALA	G	264	16.396	26.480	9.782	1.00	37.70	O
ATOM	7691	CB	ALA	G	264	14.452	28.878	8.884	1.00	36.73	C
ATOM	7692	N	ASN	G	265	16.376	28.133	11.308	1.00	38.67	N
ATOM	7693	CA	ASN	G	265	16.628	27.231	12.420	1.00	39.92	C
ATOM	7694	C	ASN	G	265	15.461	26.251	12.498	1.00	41.13	C
ATOM	7695	O	ASN	G	265	14.341	26.565	12.087	1.00	40.63	O
ATOM	7696	CB	ASN	G	265	16.722	27.992	13.745	1.00	38.98	C
ATOM	7697	CG	ASN	G	265	17.911	28.931	13.802	1.00	39.26	C
ATOM	7698	OD1	ASN	G	265	19.043	28.545	13.504	1.00	37.60	O
ATOM	7699	ND2	ASN	G	265	17.660	30.173	14.199	1.00	39.35	N
ATOM	7700	N	ALA	G	266	15.731	25.063	13.019	1.00	42.71	N
ATOM	7701	CA	ALA	G	266	14.699	24.046	13.150	1.00	44.36	C
ATOM	7702	C	ALA	G	266	14.875	23.271	14.449	1.00	45.34	C
ATOM	7703	O	ALA	G	266	15.987	23.126	14.966	1.00	45.07	O
ATOM	7704	CB	ALA	G	266	14.737	23.100	11.955	1.00	44.26	C
ATOM	7705	N	SER	G	267	13.760	22.783	14.977	1.00	46.57	N
ATOM	7706	CA	SER	G	267	13.777	22.033	16.218	1.00	47.52	C
ATOM	7707	C	SER	G	267	12.839	20.837	16.111	1.00	47.89	C
ATOM	7708	O	SER	G	267	11.818	20.890	15.416	1.00	47.62	O
ATOM	7709	CB	SER	G	267	13.355	22.953	17.365	1.00	47.81	C
ATOM	7710	OG	SER	G	267	13.657	22.380	18.623	1.00	50.08	O
ATOM	7711	N	THR	G	268	13.187	19.766	16.815	1.00	47.83	N
ATOM	7712	CA	THR	G	268	12.378	18.555	16.799	1.00	48.09	C
ATOM	7713	C	THR	G	268	12.770	17.581	17.902	1.00	48.10	C
ATOM	7714	O	THR	G	268	13.812	17.728	18.546	1.00	48.04	O
ATOM	7715	CB	THR	G	268	12.498	17.821	15.439	1.00	48.25	C
ATOM	7716	OG1	THR	G	268	11.534	16.765	15.384	1.00	49.55	O
ATOM	7717	CG2	THR	G	268	13.892	17.228	15.264	1.00	47.43	C
ATOM	7718	N	VAL	G	269	11.916	16.587	18.117	1.00	48.14	N
ATOM	7719	CA	VAL	G	269	12.168	15.558	19.117	1.00	47.99	C

Table 3

ATOM	7720	C	VAL	G	269	12.913	14.430	18.408	1.00	48.08	C
ATOM	7721	O	VAL	G	269	12.789	14.276	17.191	1.00	47.63	O
ATOM	7722	CB	VAL	G	269	10.843	15.000	19.699	1.00	48.00	C
ATOM	7723	CG1	VAL	G	269	10.074	16.103	20.404	1.00	48.03	C
ATOM	7724	CG2	VAL	G	269	10.000	14.402	18.590	1.00	47.84	C
ATOM	7725	N	VAL	G	270	13.692	13.658	19.160	1.00	48.46	N
ATOM	7726	CA	VAL	G	270	14.439	12.537	18.589	1.00	49.38	C
ATOM	7727	C	VAL	G	270	13.463	11.695	17.768	1.00	49.64	C
ATOM	7728	O	VAL	G	270	12.339	11.449	18.205	1.00	49.06	O
ATOM	7729	CB	VAL	G	270	15.051	11.647	19.703	1.00	49.87	C
ATOM	7730	CG1	VAL	G	270	15.969	10.597	19.103	1.00	50.47	C
ATOM	7731	CG2	VAL	G	270	15.809	12.499	20.683	1.00	50.03	C
ATOM	7732	N	GLY	G	271	13.883	11.274	16.579	1.00	50.39	N
ATOM	7733	CA	GLY	G	271	13.014	10.468	15.741	1.00	51.54	C
ATOM	7734	C	GLY	G	271	12.218	11.253	14.707	1.00	52.36	C
ATOM	7735	O	GLY	G	271	11.567	10.661	13.843	1.00	53.06	O
ATOM	7736	N	GLY	G	272	12.269	12.582	14.781	1.00	52.39	N
ATOM	7737	CA	GLY	G	272	11.535	13.405	13.828	1.00	52.21	C
ATOM	7738	C	GLY	G	272	12.212	13.623	12.479	1.00	51.67	C
ATOM	7739	O	GLY	G	272	13.307	13.113	12.227	1.00	51.44	O
ATOM	7740	N	ASP	G	273	11.544	14.377	11.608	1.00	51.20	N
ATOM	7741	CA	ASP	G	273	12.050	14.697	10.275	1.00	51.38	C
ATOM	7742	C	ASP	G	273	12.204	16.219	10.132	1.00	51.14	C
ATOM	7743	O	ASP	G	273	11.428	16.988	10.708	1.00	51.64	O
ATOM	7744	CB	ASP	G	273	11.080	14.169	9.213	1.00	51.73	C
ATOM	7745	N	VAL	G	274	13.193	16.658	9.357	1.00	49.98	N
ATOM	7746	CA	VAL	G	274	13.422	18.088	9.182	1.00	48.38	C
ATOM	7747	C	VAL	G	274	14.020	18.447	7.817	1.00	47.58	C
ATOM	7748	O	VAL	G	274	14.531	17.584	7.098	1.00	47.16	O
ATOM	7749	CB	VAL	G	274	14.347	18.616	10.319	1.00	48.53	C
ATOM	7750	CG1	VAL	G	274	15.745	18.033	10.179	1.00	47.61	C
ATOM	7751	CG2	VAL	G	274	14.386	20.124	10.309	1.00	49.38	C
ATOM	7752	N	GLU	G	275	13.936	19.725	7.460	1.00	45.89	N
ATOM	7753	CA	GLU	G	275	14.483	20.203	6.199	1.00	44.90	C
ATOM	7754	C	GLU	G	275	15.115	21.587	6.350	1.00	43.37	C
ATOM	7755	O	GLU	G	275	14.771	22.348	7.256	1.00	42.50	O
ATOM	7756	CB	GLU	G	275	13.389	20.277	5.133	1.00	45.32	C
ATOM	7757	CG	GLU	G	275	12.250	21.234	5.466	1.00	46.56	C
ATOM	7758	CD	GLU	G	275	11.430	21.615	4.237	1.00	47.38	C
ATOM	7759	OE1	GLU	G	275	11.349	20.793	3.306	1.00	47.81	O
ATOM	7760	OE2	GLU	G	275	10.860	22.732	4.204	1.00	47.98	O
ATOM	7761	N	PHE	G	276	16.045	21.895	5.455	1.00	41.29	N
ATOM	7762	CA	PHE	G	276	16.721	23.183	5.436	1.00	38.87	C
ATOM	7763	C	PHE	G	276	16.654	23.656	3.997	1.00	38.05	C
ATOM	7764	O	PHE	G	276	17.060	22.945	3.082	1.00	36.88	O
ATOM	7765	CB	PHE	G	276	18.174	23.038	5.889	1.00	37.78	C
ATOM	7766	CG	PHE	G	276	18.322	22.791	7.361	1.00	37.18	C
ATOM	7767	CD1	PHE	G	276	17.937	23.761	8.283	1.00	36.53	C
ATOM	7768	CD2	PHE	G	276	18.831	21.583	7.830	1.00	37.14	C
ATOM	7769	CE1	PHE	G	276	18.057	23.531	9.652	1.00	36.90	C
ATOM	7770	CE2	PHE	G	276	18.955	21.340	9.201	1.00	36.45	C
ATOM	7771	CZ	PHE	G	276	18.569	22.312	10.114	1.00	36.22	C
ATOM	7772	N	VAL	G	277	16.124	24.855	3.806	1.00	36.92	N
ATOM	7773	CA	VAL	G	277	15.967	25.413	2.482	1.00	36.11	C
ATOM	7774	C	VAL	G	277	16.952	26.540	2.235	1.00	35.68	C
ATOM	7775	O	VAL	G	277	17.307	27.287	3.144	1.00	36.03	O
ATOM	7776	CB	VAL	G	277	14.533	25.961	2.300	1.00	36.01	C
ATOM	7777	CG1	VAL	G	277	14.322	26.425	0.861	1.00	34.54	C
ATOM	7778	CG2	VAL	G	277	13.526	24.890	2.694	1.00	35.65	C
ATOM	7779	N	CYS	G	278	17.376	26.666	0.989	1.00	35.24	N
ATOM	7780	CA	CYS	G	278	18.304	27.710	0.605	1.00	35.03	C
ATOM	7781	C	CYS	G	278	17.871	28.279	-0.743	1.00	34.25	C
ATOM	7782	O	CYS	G	278	17.392	27.535	-1.596	1.00	34.32	O
ATOM	7783	CB	CYS	G	278	19.711	27.126	0.499	1.00	34.63	C
ATOM	7784	SG	CYS	G	278	20.943	28.361	0.107	1.00	37.73	S
ATOM	7785	N	LYS	G	279	18.032	29.585	-0.934	1.00	33.28	N

Table 3

ATOM	7786	CA	LYS	G	279	17.663	30.229	-2.199	1.00	32.54	C
ATOM	7787	C	LYS	G	279	18.828	31.074	-2.750	1.00	31.77	C
ATOM	7788	O	LYS	G	279	19.179	32.127	-2.198	1.00	31.51	O
ATOM	7789	CB	LYS	G	279	16.410	31.088	-2.007	1.00	32.60	C
ATOM	7790	CG	LYS	G	279	15.881	31.721	-3.289	1.00	32.83	C
ATOM	7791	CD	LYS	G	279	15.501	30.677	-4.328	1.00	33.81	C
ATOM	7792	CE	LYS	G	279	15.072	31.338	-5.656	1.00	34.37	C
ATOM	7793	NZ	LYS	G	279	15.047	30.360	-6.799	1.00	33.91	N
ATOM	7794	N	VAL	G	280	19.402	30.602	-3.851	1.00	30.58	N
ATOM	7795	CA	VAL	G	280	20.551	31.229	-4.495	1.00	30.54	C
ATOM	7796	C	VAL	G	280	20.312	31.988	-5.819	1.00	30.94	C
ATOM	7797	O	VAL	G	280	19.504	31.573	-6.653	1.00	31.37	O
ATOM	7798	CB	VAL	G	280	21.629	30.144	-4.764	1.00	30.35	C
ATOM	7799	CG1	VAL	G	280	22.840	30.753	-5.462	1.00	28.62	C
ATOM	7800	CG2	VAL	G	280	22.024	29.465	-3.441	1.00	28.95	C
ATOM	7801	N	TYR	G	281	21.039	33.091	-5.994	1.00	30.49	N
ATOM	7802	CA	TYR	G	281	20.996	33.904	-7.212	1.00	30.69	C
ATOM	7803	C	TYR	G	281	22.451	34.164	-7.679	1.00	29.61	C
ATOM	7804	O	TYR	G	281	23.311	34.519	-6.876	1.00	28.43	O
ATOM	7805	CB	TYR	G	281	20.301	35.261	-6.965	1.00	32.89	C
ATOM	7806	CG	TYR	G	281	18.838	35.163	-6.557	1.00	34.84	C
ATOM	7807	CD1	TYR	G	281	18.475	35.110	-5.210	1.00	34.37	C
ATOM	7808	CD2	TYR	G	281	17.825	35.046	-7.523	1.00	35.01	C
ATOM	7809	CE1	TYR	G	281	17.155	34.933	-4.823	1.00	35.59	C
ATOM	7810	CE2	TYR	G	281	16.485	34.863	-7.142	1.00	36.56	C
ATOM	7811	CZ	TYR	G	281	16.164	34.806	-5.785	1.00	36.55	C
ATOM	7812	OH	TYR	G	281	14.866	34.587	-5.379	1.00	37.46	O
ATOM	7813	N	SER	G	282	22.717	33.977	-8.969	1.00	29.00	N
ATOM	7814	CA	SER	G	282	24.051	34.202	-9.526	1.00	29.05	C
ATOM	7815	C	SER	G	282	24.029	34.209	-11.056	1.00	29.48	C
ATOM	7816	O	SER	G	282	23.231	33.512	-11.680	1.00	29.98	O
ATOM	7817	CB	SER	G	282	25.036	33.123	-9.036	1.00	29.21	C
ATOM	7818	OG	SER	G	282	26.365	33.368	-9.502	1.00	27.34	O
ATOM	7819	N	ASP	G	283	24.909	35.005	-11.647	1.00	29.24	N
ATOM	7820	CA	ASP	G	283	25.040	35.106	-13.095	1.00	29.48	C
ATOM	7821	C	ASP	G	283	26.001	33.974	-13.493	1.00	29.82	C
ATOM	7822	O	ASP	G	283	25.638	33.038	-14.209	1.00	30.25	O
ATOM	7823	CB	ASP	G	283	25.625	36.484	-13.436	1.00	30.69	C
ATOM	7824	CG	ASP	G	283	25.872	36.673	-14.918	1.00	32.09	C
ATOM	7825	OD1	ASP	G	283	26.122	37.829	-15.329	1.00	31.64	O
ATOM	7826	OD2	ASP	G	283	25.829	35.677	-15.670	1.00	32.66	O
ATOM	7827	N	ALA	G	284	27.231	34.072	-13.011	1.00	28.90	N
ATOM	7828	CA	ALA	G	284	28.228	33.049	-13.264	1.00	29.34	C
ATOM	7829	C	ALA	G	284	27.691	31.796	-12.571	1.00	29.13	C
ATOM	7830	O	ALA	G	284	27.174	31.878	-11.460	1.00	29.66	O
ATOM	7831	CB	ALA	G	284	29.573	33.464	-12.641	1.00	29.05	C
ATOM	7832	N	GLN	G	285	27.809	30.649	-13.224	1.00	28.43	N
ATOM	7833	CA	GLN	G	285	27.326	29.393	-12.668	1.00	28.02	C
ATOM	7834	C	GLN	G	285	27.783	29.198	-11.216	1.00	27.99	C
ATOM	7835	O	GLN	G	285	28.985	29.185	-10.936	1.00	27.38	O
ATOM	7836	CB	GLN	G	285	27.857	28.239	-13.518	1.00	27.67	C
ATOM	7837	CG	GLN	G	285	26.911	27.072	-13.569	1.00	27.62	C
ATOM	7838	CD	GLN	G	285	25.564	27.477	-14.144	1.00	27.85	C
ATOM	7839	OE1	GLN	G	285	24.538	26.853	-13.851	1.00	27.45	O
ATOM	7840	NE2	GLN	G	285	25.562	28.519	-14.975	1.00	25.85	N
ATOM	7841	N	PRO	G	286	26.839	29.047	-10.270	1.00	27.55	N
ATOM	7842	CA	PRO	G	286	27.209	28.853	-8.865	1.00	27.38	C
ATOM	7843	C	PRO	G	286	27.281	27.368	-8.474	1.00	28.25	C
ATOM	7844	O	PRO	G	286	26.605	26.523	-9.069	1.00	28.01	O
ATOM	7845	CB	PRO	G	286	26.096	29.563	-8.129	1.00	27.57	C
ATOM	7846	CG	PRO	G	286	24.902	29.135	-8.945	1.00	28.55	C
ATOM	7847	CD	PRO	G	286	25.402	29.355	-10.382	1.00	28.43	C
ATOM	7848	N	HIS	G	287	28.105	27.065	-7.476	1.00	28.63	N
ATOM	7849	CA	HIS	G	287	28.255	25.700	-6.980	1.00	29.45	C
ATOM	7850	C	HIS	G	287	27.755	25.668	-5.544	1.00	29.49	C
ATOM	7851	O	HIS	G	287	28.299	26.330	-4.667	1.00	28.79	O

Table 3

ATOM	7852	CB	HIS	G	287	29.712	25.238	-7.034	1.00	29.44	C
ATOM	7853	CG	HIS	G	287	29.896	23.844	-6.533	1.00	30.98	C
ATOM	7854	ND1	HIS	G	287	30.438	23.563	-5.299	1.00	31.86	N
ATOM	7855	CD2	HIS	G	287	29.527	22.652	-7.062	1.00	31.38	C
ATOM	7856	CE1	HIS	G	287	30.391	22.258	-5.088	1.00	32.41	C
ATOM	7857	NE2	HIS	G	287	29.840	21.684	-6.142	1.00	31.49	N
ATOM	7858	N	ILE	G	288	26.711	24.881	-5.322	1.00	29.94	N
ATOM	7859	CA	ILE	G	288	26.064	24.781	-4.029	1.00	30.32	C
ATOM	7860	C	ILE	G	288	26.328	23.478	-3.266	1.00	31.50	C
ATOM	7861	O	ILE	G	288	26.301	22.385	-3.843	1.00	31.99	O
ATOM	7862	CB	ILE	G	288	24.545	24.944	-4.230	1.00	29.55	C
ATOM	7863	CG1	ILE	G	288	24.280	26.221	-5.043	1.00	31.03	C
ATOM	7864	CG2	ILE	G	288	23.845	24.967	-2.899	1.00	30.04	C
ATOM	7865	CD1	ILE	G	288	22.817	26.443	-5.448	1.00	30.30	C
ATOM	7866	N	GLN	G	289	26.577	23.594	-1.967	1.00	32.07	N
ATOM	7867	CA	GLN	G	289	26.793	22.420	-1.131	1.00	33.10	C
ATOM	7868	C	GLN	G	289	26.274	22.691	0.276	1.00	32.96	C
ATOM	7869	O	GLN	G	289	26.144	23.846	0.688	1.00	32.94	O
ATOM	7870	CB	GLN	G	289	28.276	22.047	-1.079	1.00	33.70	C
ATOM	7871	CG	GLN	G	289	29.190	23.136	-0.572	1.00	34.69	C
ATOM	7872	CD	GLN	G	289	30.652	22.724	-0.607	1.00	35.78	C
ATOM	7873	OE1	GLN	G	289	31.045	21.754	0.034	1.00	36.22	O
ATOM	7874	NE2	GLN	G	289	31.465	23.461	-1.360	1.00	36.39	N
ATOM	7875	N	TRP	G	290	25.951	21.618	0.993	1.00	32.34	N
ATOM	7876	CA	TRP	G	290	25.460	21.719	2.359	1.00	32.63	C
ATOM	7877	C	TRP	G	290	26.526	21.162	3.292	1.00	34.01	C
ATOM	7878	O	TRP	G	290	27.037	20.062	3.073	1.00	33.74	O
ATOM	7879	CB	TRP	G	290	24.157	20.936	2.536	1.00	29.96	C
ATOM	7880	CG	TRP	G	290	22.947	21.591	1.917	1.00	27.97	C
ATOM	7881	CD1	TRP	G	290	22.447	21.367	0.673	1.00	27.32	C
ATOM	7882	CD2	TRP	G	290	22.077	22.554	2.533	1.00	26.53	C
ATOM	7883	NE1	TRP	G	290	21.313	22.122	0.470	1.00	27.22	N
ATOM	7884	CE2	TRP	G	290	21.064	22.862	1.596	1.00	27.22	C
ATOM	7885	CE3	TRP	G	290	22.053	23.185	3.783	1.00	25.74	C
ATOM	7886	CZ2	TRP	G	290	20.031	23.775	1.873	1.00	25.60	C
ATOM	7887	CZ3	TRP	G	290	21.030	24.091	4.057	1.00	26.27	C
ATOM	7888	CH2	TRP	G	290	20.032	24.376	3.104	1.00	24.97	C
ATOM	7889	N	ILE	G	291	26.847	21.921	4.335	1.00	36.02	N
ATOM	7890	CA	ILE	G	291	27.879	21.533	5.289	1.00	39.06	C
ATOM	7891	C	ILE	G	291	27.419	21.474	6.745	1.00	40.67	C
ATOM	7892	O	ILE	G	291	26.645	22.310	7.203	1.00	40.96	O
ATOM	7893	CB	ILE	G	291	29.065	22.517	5.242	1.00	38.79	C
ATOM	7894	CG1	ILE	G	291	29.506	22.748	3.796	1.00	40.06	C
ATOM	7895	CG2	ILE	G	291	30.209	21.977	6.079	1.00	39.37	C
ATOM	7896	CD1	ILE	G	291	30.620	23.789	3.648	1.00	40.28	C
ATOM	7897	N	LYS	G	292	27.920	20.483	7.471	1.00	42.52	N
ATOM	7898	CA	LYS	G	292	27.612	20.323	8.890	1.00	43.88	C
ATOM	7899	C	LYS	G	292	28.903	20.642	9.645	1.00	45.12	C
ATOM	7900	O	LYS	G	292	29.974	20.147	9.278	1.00	44.35	O
ATOM	7901	CB	LYS	G	292	27.197	18.881	9.184	1.00	44.16	C
ATOM	7902	CG	LYS	G	292	26.972	18.573	10.669	1.00	44.42	C
ATOM	7903	CD	LYS	G	292	25.542	18.855	11.097	1.00	44.52	C
ATOM	7904	CE	LYS	G	292	25.429	19.071	12.610	1.00	44.44	C
ATOM	7905	NZ	LYS	G	292	25.810	17.882	13.428	1.00	43.93	N
ATOM	7906	N	HIS	G	293	28.813	21.480	10.672	1.00	46.77	N
ATOM	7907	CA	HIS	G	293	29.994	21.830	11.452	1.00	49.11	C
ATOM	7908	C	HIS	G	293	30.218	20.751	12.510	1.00	49.79	C
ATOM	7909	O	HIS	G	293	29.460	20.639	13.471	1.00	50.32	O
ATOM	7910	CB	HIS	G	293	29.826	23.207	12.112	1.00	51.00	C
ATOM	7911	CG	HIS	G	293	29.596	24.320	11.133	1.00	52.88	C
ATOM	7912	ND1	HIS	G	293	30.353	25.473	11.123	1.00	53.54	N
ATOM	7913	CD2	HIS	G	293	28.680	24.464	10.142	1.00	53.28	C
ATOM	7914	CE1	HIS	G	293	29.916	26.278	10.169	1.00	54.40	C
ATOM	7915	NE2	HIS	G	293	28.901	25.689	9.559	1.00	54.63	N
ATOM	7916	N	VAL	G	294	31.249	19.938	12.309	1.00	50.90	N
ATOM	7917	CA	VAL	G	294	31.557	18.859	13.242	1.00	51.86	C

Table 3

ATOM	7918	C	VAL	G	294	32.912	19.083	13.907	1.00	52.55	C
ATOM	7919	O	VAL	G	294	33.369	18.263	14.708	1.00	53.84	O
ATOM	7920	CB	VAL	G	294	31.579	17.488	12.521	1.00	51.46	C
ATOM	7921	CG1	VAL	G	294	31.594	16.363	13.543	1.00	52.54	C
ATOM	7922	CG2	VAL	G	294	30.371	17.356	11.610	1.00	51.18	C
ATOM	7923	N	TYR	G	308	36.328	22.019	11.808	1.00	56.06	N
ATOM	7924	CA	TYR	G	308	36.049	20.672	11.322	1.00	55.65	C
ATOM	7925	C	TYR	G	308	34.711	20.650	10.588	1.00	55.26	C
ATOM	7926	O	TYR	G	308	33.652	20.803	11.202	1.00	55.16	O
ATOM	7927	CB	TYR	G	308	36.013	19.686	12.491	1.00	55.81	C
ATOM	7928	N	LEU	G	309	34.766	20.450	9.275	1.00	54.19	N
ATOM	7929	CA	LEU	G	309	33.558	20.422	8.459	1.00	52.78	C
ATOM	7930	C	LEU	G	309	33.294	19.063	7.829	1.00	51.35	C
ATOM	7931	O	LEU	G	309	34.214	18.275	7.625	1.00	52.19	O
ATOM	7932	CB	LEU	G	309	33.662	21.458	7.342	1.00	52.85	C
ATOM	7933	CG	LEU	G	309	33.916	22.913	7.738	1.00	52.82	C
ATOM	7934	CD1	LEU	G	309	33.961	23.762	6.474	1.00	53.14	C
ATOM	7935	CD2	LEU	G	309	32.824	23.401	8.687	1.00	53.39	C
ATOM	7936	N	LYS	G	310	32.028	18.796	7.523	1.00	49.05	N
ATOM	7937	CA	LYS	G	310	31.633	17.547	6.880	1.00	46.61	C
ATOM	7938	C	LYS	G	310	30.630	17.867	5.771	1.00	44.89	C
ATOM	7939	O	LYS	G	310	29.576	18.457	6.022	1.00	43.71	O
ATOM	7940	CB	LYS	G	310	31.003	16.589	7.893	1.00	47.16	C
ATOM	7941	N	VAL	G	311	30.964	17.481	4.543	1.00	43.13	N
ATOM	7942	CA	VAL	G	311	30.095	17.745	3.401	1.00	41.87	C
ATOM	7943	C	VAL	G	311	28.961	16.736	3.304	1.00	41.16	C
ATOM	7944	O	VAL	G	311	29.183	15.551	3.055	1.00	41.76	O
ATOM	7945	CB	VAL	G	311	30.884	17.735	2.068	1.00	41.62	C
ATOM	7946	CG1	VAL	G	311	29.927	18.000	0.894	1.00	41.69	C
ATOM	7947	CG2	VAL	G	311	31.985	18.793	2.105	1.00	40.64	C
ATOM	7948	N	LEU	G	312	27.739	17.217	3.488	1.00	39.89	N
ATOM	7949	CA	LEU	G	312	26.566	16.359	3.433	1.00	39.38	C
ATOM	7950	C	LEU	G	312	26.091	16.102	2.012	1.00	38.89	C
ATOM	7951	O	LEU	G	312	25.671	14.994	1.675	1.00	39.49	O
ATOM	7952	CB	LEU	G	312	25.422	16.989	4.231	1.00	38.49	C
ATOM	7953	CG	LEU	G	312	25.760	17.379	5.669	1.00	38.22	C
ATOM	7954	CD1	LEU	G	312	24.515	17.907	6.351	1.00	37.54	C
ATOM	7955	CD2	LEU	G	312	26.313	16.166	6.419	1.00	37.98	C
ATOM	7956	N	LYS	G	313	26.164	17.131	1.181	1.00	37.96	N
ATOM	7957	CA	LYS	G	313	25.701	17.027	-0.192	1.00	36.96	C
ATOM	7958	C	LYS	G	313	26.312	18.159	-1.011	1.00	35.75	C
ATOM	7959	O	LYS	G	313	26.484	19.270	-0.509	1.00	35.15	O
ATOM	7960	CB	LYS	G	313	24.167	17.112	-0.202	1.00	37.92	C
ATOM	7961	CG	LYS	G	313	23.531	17.036	-1.570	1.00	39.69	C
ATOM	7962	CD	LYS	G	313	22.017	16.829	-1.483	1.00	40.66	C
ATOM	7963	CE	LYS	G	313	21.293	17.981	-0.808	1.00	40.96	C
ATOM	7964	NZ	LYS	G	313	19.819	17.832	-0.980	1.00	39.90	N
ATOM	7965	N	ALA	G	314	26.651	17.871	-2.263	1.00	34.32	N
ATOM	7966	CA	ALA	G	314	27.245	18.873	-3.139	1.00	33.49	C
ATOM	7967	C	ALA	G	314	26.785	18.714	-4.585	1.00	33.13	C
ATOM	7968	O	ALA	G	314	26.636	17.594	-5.092	1.00	32.02	O
ATOM	7969	CB	ALA	G	314	28.773	18.817	-3.057	1.00	33.39	C
ATOM	7970	N	ALA	G	315	26.565	19.852	-5.242	1.00	32.55	N
ATOM	7971	CA	ALA	G	315	26.100	19.882	-6.624	1.00	32.03	C
ATOM	7972	C	ALA	G	315	27.094	19.282	-7.617	1.00	31.77	C
ATOM	7973	O	ALA	G	315	28.311	19.307	-7.409	1.00	30.61	O
ATOM	7974	CB	ALA	G	315	25.767	21.310	-7.026	1.00	31.94	C
ATOM	7975	N	GLY	G	316	26.555	18.754	-8.709	1.00	32.02	N
ATOM	7976	CA	GLY	G	316	27.384	18.159	-9.739	1.00	33.55	C
ATOM	7977	C	GLY	G	316	26.536	17.392	-10.734	1.00	35.51	C
ATOM	7978	O	GLY	G	316	25.302	17.438	-10.687	1.00	34.55	O
ATOM	7979	N	VAL	G	317	27.201	16.691	-11.645	1.00	37.19	N
ATOM	7980	CA	VAL	G	317	26.511	15.903	-12.657	1.00	39.87	C
ATOM	7981	C	VAL	G	317	25.586	14.844	-12.050	1.00	41.07	C
ATOM	7982	O	VAL	G	317	24.526	14.543	-12.605	1.00	41.25	O
ATOM	7983	CB	VAL	G	317	27.521	15.211	-13.594	1.00	40.14	C

Table 3

ATOM	7984	CG1	VAL	G	317	26.841	14.078	-14.339	1.00	41.69	C
ATOM	7985	CG2	VAL	G	317	28.075	16.226	-14.589	1.00	40.07	C
ATOM	7986	N	ASN	G	318	25.981	14.296	-10.905	1.00	41.95	N
ATOM	7987	CA	ASN	G	318	25.189	13.268	-10.248	1.00	44.07	C
ATOM	7988	C	ASN	G	318	24.232	13.814	-9.187	1.00	44.24	C
ATOM	7989	O	ASN	G	318	23.456	13.063	-8.608	1.00	45.18	O
ATOM	7990	CB	ASN	G	318	26.136	12.228	-9.646	1.00	46.50	C
ATOM	7991	CG	ASN	G	318	27.129	11.694	-10.676	1.00	48.73	C
ATOM	7992	OD1	ASN	G	318	28.332	11.580	-10.408	1.00	49.64	O
ATOM	7993	ND2	ASN	G	318	26.626	11.372	-11.866	1.00	48.81	N
ATOM	7994	N	THR	G	319	24.290	15.119	-8.939	1.00	43.75	N
ATOM	7995	CA	THR	G	319	23.417	15.766	-7.959	1.00	42.90	C
ATOM	7996	C	THR	G	319	23.090	17.152	-8.532	1.00	42.35	C
ATOM	7997	O	THR	G	319	23.662	18.163	-8.116	1.00	41.85	O
ATOM	7998	CB	THR	G	319	24.136	15.917	-6.601	1.00	44.24	C
ATOM	7999	OG1	THR	G	319	24.688	14.653	-6.211	1.00	45.37	O
ATOM	8000	CG2	THR	G	319	23.162	16.379	-5.521	1.00	44.23	C
ATOM	8001	N	THR	G	320	22.167	17.177	-9.493	1.00	40.79	N
ATOM	8002	CA	THR	G	320	21.777	18.396	-10.196	1.00	40.16	C
ATOM	8003	C	THR	G	320	21.215	19.525	-9.339	1.00	39.45	C
ATOM	8004	O	THR	G	320	20.789	19.319	-8.200	1.00	38.71	O
ATOM	8005	CB	THR	G	320	20.781	18.091	-11.345	1.00	40.38	C
ATOM	8006	OG1	THR	G	320	19.532	17.644	-10.800	1.00	40.05	O
ATOM	8007	CG2	THR	G	320	21.348	17.013	-12.262	1.00	40.03	C
ATOM	8008	N	ASP	G	321	21.229	20.733	-9.905	1.00	38.20	N
ATOM	8009	CA	ASP	G	321	20.737	21.912	-9.205	1.00	37.69	C
ATOM	8010	C	ASP	G	321	19.228	21.894	-8.944	1.00	37.99	C
ATOM	8011	O	ASP	G	321	18.745	22.613	-8.076	1.00	37.70	O
ATOM	8012	CB	ASP	G	321	21.119	23.181	-9.970	1.00	36.07	C
ATOM	8013	CG	ASP	G	321	22.612	23.470	-9.941	1.00	35.06	C
ATOM	8014	OD1	ASP	G	321	23.293	22.992	-9.008	1.00	32.54	O
ATOM	8015	OD2	ASP	G	321	23.097	24.187	-10.842	1.00	33.95	O
ATOM	8016	N	LYS	G	322	18.486	21.072	-9.684	1.00	37.99	N
ATOM	8017	CA	LYS	G	322	17.039	20.989	-9.514	1.00	37.74	C
ATOM	8018	C	LYS	G	322	16.623	20.737	-8.065	1.00	37.41	C
ATOM	8019	O	LYS	G	322	15.651	21.326	-7.578	1.00	36.98	O
ATOM	8020	CB	LYS	G	322	16.456	19.891	-10.413	1.00	38.14	C
ATOM	8021	N	GLU	G	323	17.363	19.880	-7.367	1.00	36.92	N
ATOM	8022	CA	GLU	G	323	17.026	19.562	-5.981	1.00	37.04	C
ATOM	8023	C	GLU	G	323	18.139	19.831	-4.955	1.00	37.04	C
ATOM	8024	O	GLU	G	323	18.041	19.395	-3.804	1.00	35.73	O
ATOM	8025	CB	GLU	G	323	16.584	18.097	-5.879	1.00	37.49	C
ATOM	8026	N	ILE	G	324	19.175	20.564	-5.359	1.00	36.64	N
ATOM	8027	CA	ILE	G	324	20.283	20.850	-4.457	1.00	36.36	C
ATOM	8028	C	ILE	G	324	19.974	21.894	-3.374	1.00	36.39	C
ATOM	8029	O	ILE	G	324	20.609	21.890	-2.325	1.00	36.32	O
ATOM	8030	CB	ILE	G	324	21.564	21.298	-5.236	1.00	35.97	C
ATOM	8031	CG1	ILE	G	324	22.778	21.242	-4.304	1.00	36.15	C
ATOM	8032	CG2	ILE	G	324	21.418	22.724	-5.775	1.00	35.04	C
ATOM	8033	CD1	ILE	G	324	23.201	19.838	-3.928	1.00	35.22	C
ATOM	8034	N	GLU	G	325	18.995	22.763	-3.610	1.00	36.24	N
ATOM	8035	CA	GLU	G	325	18.666	23.800	-2.636	1.00	37.40	C
ATOM	8036	C	GLU	G	325	17.861	23.396	-1.400	1.00	37.97	C
ATOM	8037	O	GLU	G	325	17.570	24.235	-0.549	1.00	37.80	O
ATOM	8038	CB	GLU	G	325	17.984	24.965	-3.344	1.00	37.95	C
ATOM	8039	CG	GLU	G	325	18.949	25.748	-4.228	1.00	39.17	C
ATOM	8040	CD	GLU	G	325	18.247	26.738	-5.131	1.00	40.30	C
ATOM	8041	OE1	GLU	G	325	17.453	26.298	-5.998	1.00	40.14	O
ATOM	8042	OE2	GLU	G	325	18.488	27.953	-4.972	1.00	40.10	O
ATOM	8043	N	VAL	G	326	17.496	22.125	-1.292	1.00	38.24	N
ATOM	8044	CA	VAL	G	326	16.767	21.668	-0.116	1.00	39.31	C
ATOM	8045	C	VAL	G	326	17.461	20.438	0.460	1.00	39.67	C
ATOM	8046	O	VAL	G	326	17.779	19.506	-0.270	1.00	39.75	O
ATOM	8047	CB	VAL	G	326	15.279	21.339	-0.443	1.00	39.91	C
ATOM	8048	CG1	VAL	G	326	15.188	20.261	-1.530	1.00	40.97	C
ATOM	8049	CG2	VAL	G	326	14.573	20.871	0.820	1.00	39.23	C

Table 3

ATOM	8050	N	LEU	G	327	17.725	20.457	1.763	1.00	40.13	N
ATOM	8051	CA	LEU	G	327	18.387	19.341	2.435	1.00	40.28	C
ATOM	8052	C	LEU	G	327	17.418	18.677	3.397	1.00	41.91	C
ATOM	8053	O	LEU	G	327	16.891	19.327	4.306	1.00	41.63	O
ATOM	8054	CB	LEU	G	327	19.612	19.821	3.219	1.00	39.29	C
ATOM	8055	CG	LEU	G	327	20.320	18.778	4.096	1.00	38.07	C
ATOM	8056	CD1	LEU	G	327	21.037	17.746	3.225	1.00	36.50	C
ATOM	8057	CD2	LEU	G	327	21.315	19.476	5.007	1.00	37.17	C
ATOM	8058	N	TYR	G	328	17.190	17.382	3.196	1.00	42.74	N
ATOM	8059	CA	TYR	G	328	16.283	16.622	4.050	1.00	43.93	C
ATOM	8060	C	TYR	G	328	17.039	15.708	5.022	1.00	45.77	C
ATOM	8061	O	TYR	G	328	18.049	15.097	4.664	1.00	45.73	O
ATOM	8062	CB	TYR	G	328	15.317	15.773	3.196	1.00	41.69	C
ATOM	8063	CG	TYR	G	328	14.348	16.574	2.342	1.00	39.94	C
ATOM	8064	CD1	TYR	G	328	14.572	16.760	0.976	1.00	38.82	C
ATOM	8065	CD2	TYR	G	328	13.224	17.176	2.910	1.00	39.08	C
ATOM	8066	CE1	TYR	G	328	13.695	17.531	0.192	1.00	38.26	C
ATOM	8067	CE2	TYR	G	328	12.345	17.953	2.144	1.00	38.56	C
ATOM	8068	CZ	TYR	G	328	12.585	18.127	0.789	1.00	38.92	C
ATOM	8069	OH	TYR	G	328	11.731	18.924	0.053	1.00	39.12	O
ATOM	8070	N	ILE	G	329	16.553	15.635	6.258	1.00	47.90	N
ATOM	8071	CA	ILE	G	329	17.151	14.768	7.272	1.00	49.82	C
ATOM	8072	C	ILE	G	329	16.029	14.083	8.047	1.00	51.30	C
ATOM	8073	O	ILE	G	329	15.304	14.727	8.802	1.00	51.47	O
ATOM	8074	CB	ILE	G	329	18.032	15.547	8.242	1.00	49.44	C
ATOM	8075	CG1	ILE	G	329	19.170	16.205	7.472	1.00	48.78	C
ATOM	8076	CG2	ILE	G	329	18.581	14.607	9.308	1.00	49.28	C
ATOM	8077	CD1	ILE	G	329	19.913	17.229	8.276	1.00	50.09	C
ATOM	8078	N	ARG	G	330	15.891	12.773	7.848	1.00	53.05	N
ATOM	8079	CA	ARG	G	330	14.836	12.000	8.503	1.00	54.65	C
ATOM	8080	C	ARG	G	330	15.320	11.157	9.683	1.00	54.87	C
ATOM	8081	O	ARG	G	330	16.498	10.798	9.773	1.00	54.39	O
ATOM	8082	CB	ARG	G	330	14.141	11.072	7.495	1.00	56.47	C
ATOM	8083	CG	ARG	G	330	13.435	11.757	6.328	1.00	58.62	C
ATOM	8084	CD	ARG	G	330	11.920	11.737	6.477	1.00	59.82	C
ATOM	8085	NE	ARG	G	330	11.244	11.856	5.182	1.00	61.36	N
ATOM	8086	CZ	ARG	G	330	9.944	12.094	5.022	1.00	62.24	C
ATOM	8087	NH1	ARG	G	330	9.162	12.243	6.078	1.00	62.98	N
ATOM	8088	NH2	ARG	G	330	9.424	12.167	3.803	1.00	62.21	N
ATOM	8089	N	ASN	G	331	14.386	10.840	10.580	1.00	55.35	N
ATOM	8090	CA	ASN	G	331	14.669	10.035	11.765	1.00	55.98	C
ATOM	8091	C	ASN	G	331	15.949	10.543	12.431	1.00	56.14	C
ATOM	8092	O	ASN	G	331	16.923	9.804	12.597	1.00	56.20	O
ATOM	8093	CB	ASN	G	331	14.798	8.552	11.365	1.00	56.59	C
ATOM	8094	CG	ASN	G	331	14.834	7.620	12.569	1.00	57.23	C
ATOM	8095	OD1	ASN	G	331	14.715	8.049	13.717	1.00	57.90	O
ATOM	8096	ND2	ASN	G	331	15.000	6.330	12.305	1.00	56.52	N
ATOM	8097	N	VAL	G	332	15.929	11.814	12.820	1.00	56.01	N
ATOM	8098	CA	VAL	G	332	17.085	12.451	13.442	1.00	55.69	C
ATOM	8099	C	VAL	G	332	17.479	11.870	14.793	1.00	55.65	C
ATOM	8100	O	VAL	G	332	16.636	11.384	15.551	1.00	55.23	O
ATOM	8101	CB	VAL	G	332	16.853	13.966	13.631	1.00	55.69	C
ATOM	8102	CG1	VAL	G	332	16.411	14.596	12.318	1.00	55.96	C
ATOM	8103	CG2	VAL	G	332	15.820	14.201	14.709	1.00	55.79	C
ATOM	8104	N	THR	G	333	18.777	11.927	15.078	1.00	55.48	N
ATOM	8105	CA	THR	G	333	19.331	11.454	16.341	1.00	55.59	C
ATOM	8106	C	THR	G	333	19.872	12.695	17.044	1.00	55.87	C
ATOM	8107	O	THR	G	333	19.893	13.777	16.453	1.00	55.99	O
ATOM	8108	CB	THR	G	333	20.504	10.472	16.126	1.00	55.46	C
ATOM	8109	OG1	THR	G	333	21.557	11.134	15.414	1.00	54.62	O
ATOM	8110	CG2	THR	G	333	20.050	9.250	15.338	1.00	55.51	C
ATOM	8111	N	PHE	G	334	20.302	12.550	18.297	1.00	55.79	N
ATOM	8112	CA	PHE	G	334	20.855	13.689	19.030	1.00	55.65	C
ATOM	8113	C	PHE	G	334	22.155	14.123	18.356	1.00	55.18	C
ATOM	8114	O	PHE	G	334	22.590	15.270	18.486	1.00	54.88	O
ATOM	8115	CB	PHE	G	334	21.172	13.325	20.489	1.00	56.25	C

Table 3

ATOM	8116	CG	PHE	G	334	19.962	13.177	21.371	1.00	57.08	C
ATOM	8117	CD1	PHE	G	334	19.411	11.920	21.614	1.00	57.54	C
ATOM	8118	CD2	PHE	G	334	19.393	14.288	21.986	1.00	56.80	C
ATOM	8119	CE1	PHE	G	334	18.313	11.771	22.463	1.00	57.99	C
ATOM	8120	CE2	PHE	G	334	18.295	14.151	22.833	1.00	57.37	C
ATOM	8121	CZ	PHE	G	334	17.754	12.891	23.075	1.00	57.64	C
ATOM	8122	N	GLU	G	335	22.778	13.190	17.643	1.00	54.14	N
ATOM	8123	CA	GLU	G	335	24.035	13.467	16.958	1.00	53.66	C
ATOM	8124	C	GLU	G	335	23.856	14.452	15.796	1.00	52.54	C
ATOM	8125	O	GLU	G	335	24.793	15.164	15.432	1.00	52.06	O
ATOM	8126	CB	GLU	G	335	24.658	12.161	16.444	1.00	53.19	C
ATOM	8127	N	ASP	G	336	22.654	14.497	15.227	1.00	51.27	N
ATOM	8128	CA	ASP	G	336	22.378	15.393	14.109	1.00	50.05	C
ATOM	8129	C	ASP	G	336	22.310	16.866	14.511	1.00	49.15	C
ATOM	8130	O	ASP	G	336	22.448	17.747	13.665	1.00	48.99	O
ATOM	8131	CB	ASP	G	336	21.083	14.981	13.407	1.00	49.53	C
ATOM	8132	CG	ASP	G	336	21.184	13.617	12.754	1.00	49.48	C
ATOM	8133	OD1	ASP	G	336	22.212	13.353	12.092	1.00	49.51	O
ATOM	8134	OD2	ASP	G	336	20.236	12.813	12.893	1.00	49.11	O
ATOM	8135	N	ALA	G	337	22.097	17.129	15.797	1.00	47.92	N
ATOM	8136	CA	ALA	G	337	22.034	18.501	16.291	1.00	47.56	C
ATOM	8137	C	ALA	G	337	23.294	19.263	15.878	1.00	47.01	C
ATOM	8138	O	ALA	G	337	24.372	18.678	15.764	1.00	47.18	O
ATOM	8139	CB	ALA	G	337	21.906	18.502	17.809	1.00	46.58	C
ATOM	8140	N	GLY	G	338	23.161	20.566	15.653	1.00	46.08	N
ATOM	8141	CA	GLY	G	338	24.320	21.356	15.274	1.00	44.93	C
ATOM	8142	C	GLY	G	338	24.059	22.424	14.225	1.00	44.14	C
ATOM	8143	O	GLY	G	338	22.911	22.675	13.842	1.00	43.26	O
ATOM	8144	N	GLU	G	339	25.137	23.050	13.758	1.00	43.05	N
ATOM	8145	CA	GLU	G	339	25.042	24.108	12.758	1.00	42.49	C
ATOM	8146	C	GLU	G	339	25.165	23.588	11.332	1.00	41.35	C
ATOM	8147	O	GLU	G	339	26.131	22.910	10.997	1.00	41.27	O
ATOM	8148	CB	GLU	G	339	26.123	25.173	12.991	1.00	42.71	C
ATOM	8149	CG	GLU	G	339	25.894	26.437	12.179	1.00	44.12	C
ATOM	8150	CD	GLU	G	339	26.770	27.608	12.610	1.00	45.91	C
ATOM	8151	OE1	GLU	G	339	26.323	28.766	12.455	1.00	46.01	O
ATOM	8152	OE2	GLU	G	339	27.901	27.379	13.090	1.00	46.77	O
ATOM	8153	N	TYR	G	340	24.172	23.910	10.505	1.00	40.08	N
ATOM	8154	CA	TYR	G	340	24.157	23.519	9.097	1.00	38.55	C
ATOM	8155	C	TYR	G	340	24.345	24.757	8.220	1.00	37.99	C
ATOM	8156	O	TYR	G	340	23.751	25.817	8.470	1.00	37.78	O
ATOM	8157	CB	TYR	G	340	22.837	22.844	8.732	1.00	39.39	C
ATOM	8158	CG	TYR	G	340	22.666	21.468	9.332	1.00	40.42	C
ATOM	8159	CD1	TYR	G	340	22.521	21.298	10.711	1.00	40.04	C
ATOM	8160	CD2	TYR	G	340	22.636	20.336	8.518	1.00	40.28	C
ATOM	8161	CE1	TYR	G	340	22.346	20.031	11.268	1.00	41.01	C
ATOM	8162	CE2	TYR	G	340	22.464	19.067	9.058	1.00	41.27	C
ATOM	8163	CZ	TYR	G	340	22.319	18.918	10.437	1.00	41.70	C
ATOM	8164	OH	TYR	G	340	22.156	17.657	10.974	1.00	41.92	O
ATOM	8165	N	THR	G	341	25.161	24.626	7.184	1.00	36.18	N
ATOM	8166	CA	THR	G	341	25.418	25.753	6.311	1.00	35.17	C
ATOM	8167	C	THR	G	341	25.232	25.489	4.830	1.00	34.76	C
ATOM	8168	O	THR	G	341	25.667	24.464	4.310	1.00	35.27	O
ATOM	8169	CB	THR	G	341	26.859	26.294	6.505	1.00	34.51	C
ATOM	8170	OG1	THR	G	341	26.998	26.830	7.823	1.00	34.37	O
ATOM	8171	CG2	THR	G	341	27.175	27.385	5.475	1.00	33.51	C
ATOM	8172	N	CYS	G	342	24.559	26.418	4.161	1.00	33.38	N
ATOM	8173	CA	CYS	G	342	24.403	26.331	2.721	1.00	33.42	C
ATOM	8174	C	CYS	G	342	25.495	27.251	2.187	1.00	32.22	C
ATOM	8175	O	CYS	G	342	25.525	28.445	2.507	1.00	31.86	O
ATOM	8176	CB	CYS	G	342	23.043	26.838	2.255	1.00	32.91	C
ATOM	8177	SG	CYS	G	342	23.023	27.056	0.461	1.00	36.06	S
ATOM	8178	N	LEU	G	343	26.403	26.698	1.395	1.00	31.33	N
ATOM	8179	CA	LEU	G	343	27.503	27.487	0.851	1.00	29.84	C
ATOM	8180	C	LEU	G	343	27.470	27.498	-0.673	1.00	29.17	C
ATOM	8181	O	LEU	G	343	27.415	26.442	-1.317	1.00	28.70	O

Table 3

ATOM	8182	CB	LEU	G	343	28.838	26.933	1.359	1.00	29.41	C
ATOM	8183	CG	LEU	G	343	30.090	27.722	0.963	1.00	30.02	C
ATOM	8184	CD1	LEU	G	343	31.213	27.426	1.928	1.00	30.53	C
ATOM	8185	CD2	LEU	G	343	30.487	27.367	-0.468	1.00	31.57	C
ATOM	8186	N	ALA	G	344	27.493	28.706	-1.234	1.00	28.06	N
ATOM	8187	CA	ALA	G	344	27.450	28.920	-2.677	1.00	28.04	C
ATOM	8188	C	ALA	G	344	28.666	29.689	-3.166	1.00	28.21	C
ATOM	8189	O	ALA	G	344	28.988	30.763	-2.648	1.00	28.24	O
ATOM	8190	CB	ALA	G	344	26.177	29.695	-3.064	1.00	24.87	C
ATOM	8191	N	GLY	G	345	29.331	29.153	-4.182	1.00	28.21	N
ATOM	8192	CA	GLY	G	345	30.485	29.841	-4.721	1.00	28.10	C
ATOM	8193	C	GLY	G	345	30.563	29.818	-6.232	1.00	27.62	C
ATOM	8194	O	GLY	G	345	30.088	28.880	-6.866	1.00	27.30	O
ATOM	8195	N	ASN	G	346	31.136	30.875	-6.801	1.00	28.40	N
ATOM	8196	CA	ASN	G	346	31.365	30.979	-8.238	1.00	29.46	C
ATOM	8197	C	ASN	G	346	32.806	31.503	-8.405	1.00	29.97	C
ATOM	8198	O	ASN	G	346	33.516	31.688	-7.411	1.00	28.93	O
ATOM	8199	CB	ASN	G	346	30.332	31.913	-8.910	1.00	29.29	C
ATOM	8200	CG	ASN	G	346	30.356	33.346	-8.363	1.00	31.68	C
ATOM	8201	OD1	ASN	G	346	31.400	33.876	-7.995	1.00	32.04	O
ATOM	8202	ND2	ASN	G	346	29.189	33.987	-8.347	1.00	33.14	N
ATOM	8203	N	SER	G	347	33.232	31.737	-9.645	1.00	31.49	N
ATOM	8204	CA	SER	G	347	34.582	32.229	-9.933	1.00	32.37	C
ATOM	8205	C	SER	G	347	34.951	33.528	-9.197	1.00	33.15	C
ATOM	8206	O	SER	G	347	36.117	33.755	-8.877	1.00	33.62	O
ATOM	8207	CB	SER	G	347	34.736	32.425	-11.449	1.00	32.93	C
ATOM	8208	OG	SER	G	347	33.785	33.349	-11.969	1.00	33.21	O
ATOM	8209	N	ILE	G	348	33.962	34.374	-8.918	1.00	33.11	N
ATOM	8210	CA	ILE	G	348	34.218	35.639	-8.233	1.00	33.33	C
ATOM	8211	C	ILE	G	348	34.392	35.516	-6.717	1.00	33.98	C
ATOM	8212	O	ILE	G	348	35.285	36.146	-6.139	1.00	34.53	O
ATOM	8213	CB	ILE	G	348	33.097	36.656	-8.537	1.00	33.03	C
ATOM	8214	CG1	ILE	G	348	33.069	36.952	-10.038	1.00	32.51	C
ATOM	8215	CG2	ILE	G	348	33.331	37.942	-7.771	1.00	32.83	C
ATOM	8216	CD1	ILE	G	348	31.686	37.154	-10.592	1.00	33.67	C
ATOM	8217	N	GLY	G	349	33.549	34.711	-6.073	1.00	33.74	N
ATOM	8218	CA	GLY	G	349	33.651	34.554	-4.634	1.00	33.15	C
ATOM	8219	C	GLY	G	349	32.691	33.558	-4.005	1.00	33.68	C
ATOM	8220	O	GLY	G	349	31.941	32.868	-4.698	1.00	33.59	O
ATOM	8221	N	ILE	G	350	32.700	33.528	-2.672	1.00	34.04	N
ATOM	8222	CA	ILE	G	350	31.895	32.614	-1.864	1.00	33.81	C
ATOM	8223	C	ILE	G	350	30.926	33.311	-0.907	1.00	34.33	C
ATOM	8224	O	ILE	G	350	31.259	34.340	-0.327	1.00	34.64	O
ATOM	8225	CB	ILE	G	350	32.828	31.741	-0.999	1.00	34.32	C
ATOM	8226	CG1	ILE	G	350	33.708	30.871	-1.898	1.00	34.38	C
ATOM	8227	CG2	ILE	G	350	32.022	30.935	0.015	1.00	34.43	C
ATOM	8228	CD1	ILE	G	350	34.723	30.023	-1.133	1.00	34.20	C
ATOM	8229	N	SER	G	351	29.740	32.728	-0.736	1.00	33.67	N
ATOM	8230	CA	SER	G	351	28.720	33.241	0.179	1.00	32.95	C
ATOM	8231	C	SER	G	351	28.097	32.051	0.917	1.00	32.49	C
ATOM	8232	O	SER	G	351	28.025	30.957	0.363	1.00	31.80	O
ATOM	8233	CB	SER	G	351	27.636	34.000	-0.595	1.00	33.61	C
ATOM	8234	OG	SER	G	351	28.168	35.162	-1.207	1.00	33.50	O
ATOM	8235	N	PHE	G	352	27.659	32.257	2.157	1.00	31.29	N
ATOM	8236	CA	PHE	G	352	27.060	31.177	2.930	1.00	31.63	C
ATOM	8237	C	PHE	G	352	26.168	31.651	4.080	1.00	32.23	C
ATOM	8238	O	PHE	G	352	26.469	32.652	4.737	1.00	32.63	O
ATOM	8239	CB	PHE	G	352	28.167	30.260	3.476	1.00	31.01	C
ATOM	8240	CG	PHE	G	352	29.075	30.920	4.486	1.00	31.43	C
ATOM	8241	CD1	PHE	G	352	28.670	31.081	5.812	1.00	31.71	C
ATOM	8242	CD2	PHE	G	352	30.338	31.384	4.111	1.00	31.71	C
ATOM	8243	CE1	PHE	G	352	29.512	31.694	6.756	1.00	32.54	C
ATOM	8244	CE2	PHE	G	352	31.186	32.000	5.045	1.00	31.96	C
ATOM	8245	CZ	PHE	G	352	30.776	32.154	6.364	1.00	31.67	C
ATOM	8246	N	HIS	G	353	25.067	30.934	4.307	1.00	32.19	N
ATOM	8247	CA	HIS	G	353	24.131	31.235	5.400	1.00	32.95	C

Table 3

ATOM	8248	C	HIS	G	353	24.019	29.976	6.266	1.00	33.83	C
ATOM	8249	O	HIS	G	353	23.995	28.854	5.745	1.00	33.62	O
ATOM	8250	CB	HIS	G	353	22.725	31.590	4.887	1.00	31.45	C
ATOM	8251	CG	HIS	G	353	22.598	32.972	4.314	1.00	31.24	C
ATOM	8252	ND1	HIS	G	353	21.390	33.479	3.874	1.00	28.98	N
ATOM	8253	CD2	HIS	G	353	23.519	33.939	4.085	1.00	31.47	C
ATOM	8254	CE1	HIS	G	353	21.575	34.698	3.396	1.00	29.98	C
ATOM	8255	NE2	HIS	G	353	22.857	35.003	3.509	1.00	29.58	N
ATOM	8256	N	SER	G	354	23.925	30.162	7.582	1.00	34.43	N
ATOM	8257	CA	SER	G	354	23.841	29.040	8.505	1.00	35.16	C
ATOM	8258	C	SER	G	354	22.591	29.026	9.371	1.00	36.14	C
ATOM	8259	O	SER	G	354	21.977	30.058	9.621	1.00	36.56	O
ATOM	8260	CB	SER	G	354	25.070	29.035	9.407	1.00	35.17	C
ATOM	8261	OG	SER	G	354	26.245	29.081	8.632	1.00	35.00	O
ATOM	8262	N	ALA	G	355	22.222	27.834	9.825	1.00	37.15	N
ATOM	8263	CA	ALA	G	355	21.054	27.658	10.676	1.00	38.86	C
ATOM	8264	C	ALA	G	355	21.394	26.584	11.695	1.00	39.80	C
ATOM	8265	O	ALA	G	355	22.340	25.816	11.513	1.00	39.82	O
ATOM	8266	CB	ALA	G	355	19.846	27.235	9.843	1.00	37.20	C
ATOM	8267	N	TRP	G	356	20.626	26.525	12.770	1.00	41.54	N
ATOM	8268	CA	TRP	G	356	20.881	25.531	13.800	1.00	43.64	C
ATOM	8269	C	TRP	G	356	19.751	24.523	13.935	1.00	43.65	C
ATOM	8270	O	TRP	G	356	18.573	24.860	13.788	1.00	43.22	O
ATOM	8271	CB	TRP	G	356	21.114	26.225	15.141	1.00	46.44	C
ATOM	8272	CG	TRP	G	356	22.511	26.086	15.662	1.00	49.88	C
ATOM	8273	CD1	TRP	G	356	23.063	24.983	16.258	1.00	51.44	C
ATOM	8274	CD2	TRP	G	356	23.535	27.086	15.640	1.00	51.37	C
ATOM	8275	NE1	TRP	G	356	24.371	25.238	16.612	1.00	52.49	N
ATOM	8276	CE2	TRP	G	356	24.686	26.520	16.244	1.00	52.66	C
ATOM	8277	CE3	TRP	G	356	23.595	28.405	15.171	1.00	52.35	C
ATOM	8278	CZ2	TRP	G	356	25.884	27.231	16.391	1.00	53.68	C
ATOM	8279	CZ3	TRP	G	356	24.785	29.117	15.318	1.00	53.49	C
ATOM	8280	CH2	TRP	G	356	25.914	28.526	15.924	1.00	54.51	C
ATOM	8281	N	LEU	G	357	20.123	23.276	14.191	1.00	43.63	N
ATOM	8282	CA	LEU	G	357	19.140	22.227	14.387	1.00	44.46	C
ATOM	8283	C	LEU	G	357	19.162	21.828	15.854	1.00	45.26	C
ATOM	8284	O	LEU	G	357	20.201	21.426	16.381	1.00	45.00	O
ATOM	8285	CB	LEU	G	357	19.452	21.003	13.526	1.00	43.98	C
ATOM	8286	CG	LEU	G	357	18.610	19.760	13.838	1.00	43.52	C
ATOM	8287	CD1	LEU	G	357	17.133	20.042	13.592	1.00	43.52	C
ATOM	8288	CD2	LEU	G	357	19.076	18.604	12.980	1.00	43.08	C
ATOM	8289	N	THR	G	358	18.017	21.963	16.516	1.00	46.65	N
ATOM	8290	CA	THR	G	358	17.895	21.582	17.923	1.00	47.93	C
ATOM	8291	C	THR	G	358	17.109	20.284	18.028	1.00	48.09	C
ATOM	8292	O	THR	G	358	16.003	20.177	17.499	1.00	48.24	O
ATOM	8293	CB	THR	G	358	17.159	22.659	18.768	1.00	48.22	C
ATOM	8294	OG1	THR	G	358	17.958	23.846	18.850	1.00	48.40	O
ATOM	8295	CG2	THR	G	358	16.902	22.140	20.183	1.00	48.34	C
ATOM	8296	N	VAL	G	359	17.691	19.297	18.703	1.00	48.99	N
ATOM	8297	CA	VAL	G	359	17.040	17.997	18.889	1.00	50.41	C
ATOM	8298	C	VAL	G	359	16.756	17.800	20.378	1.00	51.86	C
ATOM	8299	O	VAL	G	359	17.685	17.740	21.187	1.00	51.15	O
ATOM	8300	CB	VAL	G	359	17.931	16.836	18.384	1.00	49.92	C
ATOM	8301	CG1	VAL	G	359	17.222	15.503	18.595	1.00	49.38	C
ATOM	8302	CG2	VAL	G	359	18.246	17.029	16.915	1.00	49.42	C
ATOM	8303	N	LEU	G	360	15.480	17.688	20.741	1.00	53.56	N
ATOM	8304	CA	LEU	G	360	15.070	17.535	22.138	1.00	54.99	C
ATOM	8305	C	LEU	G	360	14.742	16.092	22.563	1.00	56.44	C
ATOM	8306	O	LEU	G	360	14.593	15.216	21.713	1.00	55.74	O
ATOM	8307	CB	LEU	G	360	13.838	18.408	22.376	1.00	54.30	C
ATOM	8308	CG	LEU	G	360	13.939	19.838	21.853	1.00	54.34	C
ATOM	8309	CD1	LEU	G	360	12.560	20.487	21.838	1.00	53.64	C
ATOM	8310	CD2	LEU	G	360	14.903	20.630	22.725	1.00	53.91	C
ATOM	8311	N	PRO	G	361	14.638	15.837	23.893	1.00	58.35	N
ATOM	8312	CA	PRO	G	361	14.320	14.519	24.477	1.00	60.10	C
ATOM	8313	C	PRO	G	361	13.075	13.925	23.790	1.00	61.58	C

Table 3

ATOM	8314	O	PRO	G	361	12.479	14.587	22.946	1.00	62.32	O
ATOM	8315	CB	PRO	G	361	14.132	14.826	25.973	1.00	59.69	C
ATOM	8316	CG	PRO	G	361	14.047	16.375	26.043	1.00	59.70	C
ATOM	8317	CD	PRO	G	361	14.970	16.805	24.956	1.00	58.52	C
ATOM	8318	N	ALA	G	362	12.644	12.721	24.119	1.00	63.49	N
ATOM	8319	CA	ALA	G	362	11.508	12.198	23.366	1.00	65.19	C
ATOM	8320	C	ALA	G	362	10.312	11.461	23.982	1.00	66.25	C
ATOM	8321	O	ALA	G	362	10.011	10.348	23.530	1.00	67.02	O
ATOM	8322	CB	ALA	G	362	12.049	11.335	22.194	1.00	64.93	C
ATOM	8323	N	PRO	G	363	9.635	12.014	25.008	1.00	66.83	N
ATOM	8324	CA	PRO	G	363	8.510	11.171	25.448	1.00	67.25	C
ATOM	8325	C	PRO	G	363	7.314	11.363	24.506	1.00	67.60	C
ATOM	8326	O	PRO	G	363	7.514	11.250	23.265	1.00	67.94	O
ATOM	8327	CB	PRO	G	363	8.195	11.695	26.849	1.00	67.25	C
ATOM	8328	CG	PRO	G	363	9.583	12.157	27.339	1.00	67.51	C
ATOM	8329	CD	PRO	G	363	10.079	12.901	26.099	1.00	67.27	C
TER	8330		PRO	G	363						
ATOM	8331	N	LYS	H	151	68.361	-2.336	64.009	1.00	37.79	N
ATOM	8332	CA	LYS	H	151	66.948	-2.442	63.538	1.00	38.61	C
ATOM	8333	C	LYS	H	151	66.342	-1.053	63.268	1.00	38.86	C
ATOM	8334	O	LYS	H	151	66.335	-0.190	64.150	1.00	39.10	O
ATOM	8335	CB	LYS	H	151	66.104	-3.180	64.586	1.00	38.89	C
ATOM	8336	N	ARG	H	152	65.854	-0.836	62.047	1.00	38.23	N
ATOM	8337	CA	ARG	H	152	65.246	0.443	61.680	1.00	37.61	C
ATOM	8338	C	ARG	H	152	64.375	0.372	60.432	1.00	36.65	C
ATOM	8339	O	ARG	H	152	64.543	-0.509	59.582	1.00	36.15	O
ATOM	8340	CB	ARG	H	152	66.321	1.519	61.477	1.00	38.33	C
ATOM	8341	CG	ARG	H	152	67.309	1.232	60.365	1.00	39.54	C
ATOM	8342	CD	ARG	H	152	68.455	2.260	60.323	1.00	40.17	C
ATOM	8343	NE	ARG	H	152	68.034	3.574	59.837	1.00	38.82	N
ATOM	8344	CZ	ARG	H	152	68.873	4.573	59.563	1.00	39.74	C
ATOM	8345	NH1	ARG	H	152	70.179	4.406	59.727	1.00	39.28	N
ATOM	8346	NH2	ARG	H	152	68.414	5.739	59.121	1.00	38.90	N
ATOM	8347	N	ALA	H	153	63.447	1.321	60.342	1.00	35.00	N
ATOM	8348	CA	ALA	H	153	62.519	1.433	59.225	1.00	33.97	C
ATOM	8349	C	ALA	H	153	63.284	1.736	57.935	1.00	33.19	C
ATOM	8350	O	ALA	H	153	64.443	2.139	57.976	1.00	33.04	O
ATOM	8351	CB	ALA	H	153	61.518	2.548	59.514	1.00	33.10	C
ATOM	8352	N	PRO	H	154	62.635	1.561	56.771	1.00	32.28	N
ATOM	8353	CA	PRO	H	154	63.303	1.831	55.490	1.00	32.17	C
ATOM	8354	C	PRO	H	154	63.644	3.308	55.319	1.00	32.24	C
ATOM	8355	O	PRO	H	154	62.956	4.181	55.849	1.00	31.70	O
ATOM	8356	CB	PRO	H	154	62.279	1.377	54.443	1.00	31.52	C
ATOM	8357	CG	PRO	H	154	61.340	0.453	55.213	1.00	32.11	C
ATOM	8358	CD	PRO	H	154	61.245	1.131	56.555	1.00	32.39	C
ATOM	8359	N	TYR	H	155	64.708	3.578	54.574	1.00	32.18	N
ATOM	8360	CA	TYR	H	155	65.129	4.944	54.310	1.00	32.80	C
ATOM	8361	C	TYR	H	155	65.922	5.019	53.004	1.00	32.74	C
ATOM	8362	O	TYR	H	155	66.623	4.073	52.644	1.00	33.34	O
ATOM	8363	CB	TYR	H	155	65.975	5.483	55.470	1.00	32.80	C
ATOM	8364	CG	TYR	H	155	67.319	4.811	55.635	1.00	34.02	C
ATOM	8365	CD1	TYR	H	155	67.411	3.508	56.115	1.00	34.87	C
ATOM	8366	CD2	TYR	H	155	68.499	5.477	55.307	1.00	34.83	C
ATOM	8367	CE1	TYR	H	155	68.642	2.879	56.264	1.00	36.26	C
ATOM	8368	CE2	TYR	H	155	69.744	4.854	55.453	1.00	35.52	C
ATOM	8369	CZ	TYR	H	155	69.802	3.557	55.931	1.00	36.36	C
ATOM	8370	OH	TYR	H	155	71.014	2.927	56.083	1.00	39.04	O
ATOM	8371	N	TRP	H	156	65.806	6.137	52.293	1.00	32.88	N
ATOM	8372	CA	TRP	H	156	66.529	6.309	51.031	1.00	34.25	C
ATOM	8373	C	TRP	H	156	68.018	6.515	51.302	1.00	36.20	C
ATOM	8374	O	TRP	H	156	68.391	7.360	52.112	1.00	36.60	O
ATOM	8375	CB	TRP	H	156	65.995	7.516	50.248	1.00	31.44	C
ATOM	8376	CG	TRP	H	156	64.525	7.485	50.003	1.00	29.10	C
ATOM	8377	CD1	TRP	H	156	63.649	8.505	50.207	1.00	27.47	C
ATOM	8378	CD2	TRP	H	156	63.751	6.374	49.528	1.00	27.11	C
ATOM	8379	NE1	TRP	H	156	62.372	8.101	49.894	1.00	27.08	N

ATOM	8380	CE2	TRP	H	156	62.405	6.800	49.475	1.00	26.90	C
ATOM	8381	CE3	TRP	H	156	64.064	5.064	49.145	1.00	27.16	C
ATOM	8382	CZ2	TRP	H	156	61.368	5.960	49.053	1.00	26.39	C
ATOM	8383	CZ3	TRP	H	156	63.027	4.220	48.726	1.00	27.16	C
ATOM	8384	CH2	TRP	H	156	61.695	4.676	48.685	1.00	27.77	C
ATOM	8385	N	THR	H	157	68.863	5.749	50.617	1.00	38.27	N
ATOM	8386	CA	THR	H	157	70.312	5.860	50.803	1.00	40.64	C
ATOM	8387	C	THR	H	157	70.982	6.820	49.834	1.00	42.78	C
ATOM	8388	O	THR	H	157	72.187	7.048	49.929	1.00	43.27	O
ATOM	8389	CB	THR	H	157	71.056	4.490	50.659	1.00	39.80	C
ATOM	8390	OG1	THR	H	157	70.746	3.889	49.395	1.00	39.61	O
ATOM	8391	CG2	THR	H	157	70.685	3.545	51.786	1.00	39.19	C
ATOM	8392	N	ASN	H	158	70.214	7.382	48.906	1.00	44.33	N
ATOM	8393	CA	ASN	H	158	70.779	8.304	47.930	1.00	46.06	C
ATOM	8394	C	ASN	H	158	69.702	9.157	47.268	1.00	46.05	C
ATOM	8395	O	ASN	H	158	69.271	8.871	46.157	1.00	46.11	O
ATOM	8396	CB	ASN	H	158	71.546	7.510	46.868	1.00	47.77	C
ATOM	8397	CG	ASN	H	158	72.210	8.405	45.838	1.00	50.73	C
ATOM	8398	OD1	ASN	H	158	71.537	9.123	45.091	1.00	53.07	O
ATOM	8399	ND2	ASN	H	158	73.540	8.374	45.798	1.00	51.21	N
ATOM	8400	N	THR	H	159	69.278	10.212	47.957	1.00	46.64	N
ATOM	8401	CA	THR	H	159	68.243	11.102	47.448	1.00	46.95	C
ATOM	8402	C	THR	H	159	68.667	11.891	46.221	1.00	46.70	C
ATOM	8403	O	THR	H	159	67.816	12.360	45.471	1.00	47.12	O
ATOM	8404	CB	THR	H	159	67.819	12.111	48.506	1.00	47.09	C
ATOM	8405	OG1	THR	H	159	68.968	12.859	48.928	1.00	48.35	O
ATOM	8406	CG2	THR	H	159	67.202	11.403	49.689	1.00	47.23	C
ATOM	8407	N	GLU	H	160	69.972	12.053	46.024	1.00	46.63	N
ATOM	8408	CA	GLU	H	160	70.471	12.805	44.877	1.00	46.12	C
ATOM	8409	C	GLU	H	160	69.952	12.202	43.575	1.00	46.04	C
ATOM	8410	O	GLU	H	160	69.453	12.915	42.713	1.00	45.59	O
ATOM	8411	CB	GLU	H	160	72.000	12.830	44.869	1.00	46.26	C
ATOM	8412	N	LYS	H	161	70.054	10.882	43.450	1.00	45.79	N
ATOM	8413	CA	LYS	H	161	69.600	10.179	42.256	1.00	45.35	C
ATOM	8414	C	LYS	H	161	68.072	10.089	42.139	1.00	45.08	C
ATOM	8415	O	LYS	H	161	67.561	9.494	41.192	1.00	45.43	O
ATOM	8416	CB	LYS	H	161	70.201	8.764	42.224	1.00	45.41	C
ATOM	8417	N	MET	H	162	67.346	10.677	43.088	1.00	44.29	N
ATOM	8418	CA	MET	H	162	65.880	10.636	43.067	1.00	43.74	C
ATOM	8419	C	MET	H	162	65.245	12.014	42.864	1.00	43.76	C
ATOM	8420	O	MET	H	162	64.025	12.122	42.728	1.00	43.56	O
ATOM	8421	CB	MET	H	162	65.344	10.032	44.377	1.00	42.48	C
ATOM	8422	CG	MET	H	162	65.754	8.586	44.645	1.00	40.88	C
ATOM	8423	SD	MET	H	162	65.344	8.030	46.334	1.00	40.08	S
ATOM	8424	CE	MET	H	162	63.553	7.764	46.172	1.00	39.02	C
ATOM	8425	N	GLU	H	163	66.064	13.062	42.842	1.00	43.95	N
ATOM	8426	CA	GLU	H	163	65.557	14.425	42.683	1.00	44.14	C
ATOM	8427	C	GLU	H	163	64.862	14.695	41.348	1.00	42.70	C
ATOM	8428	O	GLU	H	163	63.919	15.476	41.292	1.00	42.78	O
ATOM	8429	CB	GLU	H	163	66.691	15.430	42.882	1.00	46.35	C
ATOM	8430	CG	GLU	H	163	67.440	15.228	44.188	1.00	50.14	C
ATOM	8431	CD	GLU	H	163	68.535	16.253	44.405	1.00	51.96	C
ATOM	8432	OE1	GLU	H	163	69.034	16.808	43.402	1.00	53.14	O
ATOM	8433	OE2	GLU	H	163	68.906	16.490	45.578	1.00	53.48	O
ATOM	8434	N	LYS	H	164	65.333	14.062	40.278	1.00	41.20	N
ATOM	8435	CA	LYS	H	164	64.739	14.233	38.947	1.00	39.43	C
ATOM	8436	C	LYS	H	164	63.413	13.454	38.920	1.00	38.51	C
ATOM	8437	O	LYS	H	164	63.398	12.239	38.710	1.00	38.56	O
ATOM	8438	CB	LYS	H	164	65.701	13.694	37.872	1.00	38.67	C
ATOM	8439	CG	LYS	H	164	65.256	13.935	36.426	1.00	38.08	C
ATOM	8440	CD	LYS	H	164	66.199	13.274	35.408	1.00	37.42	C
ATOM	8441	CE	LYS	H	164	65.701	13.467	33.983	1.00	36.65	C
ATOM	8442	NZ	LYS	H	164	66.459	12.694	32.942	1.00	35.87	N
ATOM	8443	N	ARG	H	165	62.305	14.158	39.126	1.00	37.03	N
ATOM	8444	CA	ARG	H	165	60.990	13.521	39.167	1.00	36.21	C
ATOM	8445	C	ARG	H	165	60.399	13.209	37.799	1.00	35.48	C

Table 3

ATOM	8446	O	ARG	H	165	59.831	12.132	37.582	1.00	35.58	O
ATOM	8447	CB	ARG	H	165	60.021	14.405	39.958	1.00	35.31	C
ATOM	8448	N	LEU	H	166	60.513	14.164	36.882	1.00	34.91	N
ATOM	8449	CA	LEU	H	166	59.999	13.991	35.536	1.00	34.26	C
ATOM	8450	C	LEU	H	166	61.087	13.485	34.600	1.00	33.85	C
ATOM	8451	O	LEU	H	166	62.127	14.124	34.432	1.00	34.10	O
ATOM	8452	CB	LEU	H	166	59.427	15.308	35.011	1.00	34.41	C
ATOM	8453	CG	LEU	H	166	59.113	15.352	33.509	1.00	36.55	C
ATOM	8454	CD1	LEU	H	166	58.077	14.286	33.105	1.00	34.87	C
ATOM	8455	CD2	LEU	H	166	58.612	16.746	33.184	1.00	37.30	C
ATOM	8456	N	HIS	H	167	60.839	12.319	34.011	1.00	33.98	N
ATOM	8457	CA	HIS	H	167	61.754	11.697	33.064	1.00	34.35	C
ATOM	8458	C	HIS	H	167	61.144	11.760	31.669	1.00	34.53	C
ATOM	8459	O	HIS	H	167	60.244	10.975	31.341	1.00	34.24	O
ATOM	8460	CB	HIS	H	167	62.002	10.226	33.414	1.00	34.98	C
ATOM	8461	CG	HIS	H	167	63.101	10.016	34.403	1.00	36.61	C
ATOM	8462	ND1	HIS	H	167	63.021	10.452	35.707	1.00	37.72	N
ATOM	8463	CD2	HIS	H	167	64.328	9.462	34.264	1.00	37.02	C
ATOM	8464	CE1	HIS	H	167	64.156	10.180	36.330	1.00	37.52	C
ATOM	8465	NE2	HIS	H	167	64.965	9.580	35.475	1.00	37.37	N
ATOM	8466	N	ALA	H	168	61.611	12.699	30.854	1.00	33.25	N
ATOM	8467	CA	ALA	H	168	61.112	12.811	29.492	1.00	32.55	C
ATOM	8468	C	ALA	H	168	62.219	12.260	28.618	1.00	32.58	C
ATOM	8469	O	ALA	H	168	63.343	12.762	28.648	1.00	32.79	O
ATOM	8470	CB	ALA	H	168	60.824	14.255	29.149	1.00	32.66	C
ATOM	8471	N	VAL	H	169	61.908	11.221	27.851	1.00	32.15	N
ATOM	8472	CA	VAL	H	169	62.904	10.593	27.001	1.00	33.27	C
ATOM	8473	C	VAL	H	169	62.395	10.294	25.599	1.00	33.21	C
ATOM	8474	O	VAL	H	169	61.200	10.126	25.376	1.00	33.45	O
ATOM	8475	CB	VAL	H	169	63.403	9.258	27.627	1.00	34.54	C
ATOM	8476	CG1	VAL	H	169	63.759	9.472	29.110	1.00	34.94	C
ATOM	8477	CG2	VAL	H	169	62.324	8.176	27.497	1.00	34.37	C
ATOM	8478	N	PRO	H	170	63.312	10.221	24.631	1.00	32.96	N
ATOM	8479	CA	PRO	H	170	62.909	9.930	23.258	1.00	32.75	C
ATOM	8480	C	PRO	H	170	62.512	8.468	23.093	1.00	33.59	C
ATOM	8481	O	PRO	H	170	63.074	7.579	23.746	1.00	33.16	O
ATOM	8482	CB	PRO	H	170	64.139	10.317	22.447	1.00	32.54	C
ATOM	8483	CG	PRO	H	170	65.258	10.129	23.389	1.00	33.31	C
ATOM	8484	CD	PRO	H	170	64.724	10.627	24.698	1.00	33.12	C
ATOM	8485	N	ALA	H	171	61.523	8.234	22.233	1.00	33.29	N
ATOM	8486	CA	ALA	H	171	61.026	6.892	21.964	1.00	33.83	C
ATOM	8487	C	ALA	H	171	62.169	5.976	21.563	1.00	33.64	C
ATOM	8488	O	ALA	H	171	63.141	6.435	20.963	1.00	33.64	O
ATOM	8489	CB	ALA	H	171	59.971	6.934	20.840	1.00	33.62	C
ATOM	8490	N	ALA	H	172	62.049	4.694	21.920	1.00	33.14	N
ATOM	8491	CA	ALA	H	172	63.037	3.661	21.596	1.00	33.03	C
ATOM	8492	C	ALA	H	172	64.201	3.536	22.575	1.00	33.25	C
ATOM	8493	O	ALA	H	172	65.023	2.628	22.458	1.00	34.34	O
ATOM	8494	CB	ALA	H	172	63.571	3.862	20.169	1.00	31.77	C
ATOM	8495	N	ASN	H	173	64.276	4.443	23.534	1.00	33.52	N
ATOM	8496	CA	ASN	H	173	65.337	4.412	24.534	1.00	33.97	C
ATOM	8497	C	ASN	H	173	64.952	3.510	25.709	1.00	33.74	C
ATOM	8498	O	ASN	H	173	63.795	3.098	25.848	1.00	34.12	O
ATOM	8499	CB	ASN	H	173	65.590	5.827	25.092	1.00	35.64	C
ATOM	8500	CG	ASN	H	173	66.456	6.694	24.176	1.00	35.73	C
ATOM	8501	OD1	ASN	H	173	66.444	6.554	22.960	1.00	37.95	O
ATOM	8502	ND2	ASN	H	173	67.190	7.612	24.772	1.00	36.54	N
ATOM	8503	N	THR	H	174	65.938	3.206	26.546	1.00	32.58	N
ATOM	8504	CA	THR	H	174	65.715	2.413	27.752	1.00	31.55	C
ATOM	8505	C	THR	H	174	65.553	3.405	28.910	1.00	30.88	C
ATOM	8506	O	THR	H	174	66.265	4.407	28.976	1.00	30.12	O
ATOM	8507	CB	THR	H	174	66.927	1.524	28.093	1.00	31.44	C
ATOM	8508	OG1	THR	H	174	67.034	0.468	27.137	1.00	32.92	O
ATOM	8509	CG2	THR	H	174	66.785	0.935	29.500	1.00	31.57	C
ATOM	8510	N	VAL	H	175	64.620	3.130	29.814	1.00	29.88	N
ATOM	8511	CA	VAL	H	175	64.406	3.994	30.969	1.00	29.48	C

Table 3

ATOM	8512	C	VAL	H	175	64.687	3.217	32.256	1.00	28.35	C
ATOM	8513	O	VAL	H	175	64.333	2.042	32.373	1.00	28.18	O
ATOM	8514	CB	VAL	H	175	62.956	4.515	31.013	1.00	29.63	C
ATOM	8515	CG1	VAL	H	175	62.767	5.425	32.227	1.00	29.99	C
ATOM	8516	CG2	VAL	H	175	62.642	5.272	29.743	1.00	30.62	C
ATOM	8517	N	LYS	H	176	65.333	3.862	33.219	1.00	28.20	N
ATOM	8518	CA	LYS	H	176	65.646	3.214	34.488	1.00	28.67	C
ATOM	8519	C	LYS	H	176	65.293	4.100	35.689	1.00	29.19	C
ATOM	8520	O	LYS	H	176	65.775	5.230	35.804	1.00	28.15	O
ATOM	8521	CB	LYS	H	176	67.133	2.848	34.547	1.00	28.72	C
ATOM	8522	N	PHE	H	177	64.434	3.588	36.568	1.00	28.89	N
ATOM	8523	CA	PHE	H	177	64.042	4.322	37.765	1.00	29.43	C
ATOM	8524	C	PHE	H	177	64.709	3.653	38.956	1.00	30.25	C
ATOM	8525	O	PHE	H	177	64.759	2.424	39.037	1.00	29.85	O
ATOM	8526	CB	PHE	H	177	62.515	4.304	37.952	1.00	28.61	C
ATOM	8527	CG	PHE	H	177	61.759	5.072	36.894	1.00	27.90	C
ATOM	8528	CD1	PHE	H	177	62.108	6.378	36.584	1.00	27.39	C
ATOM	8529	CD2	PHE	H	177	60.697	4.488	36.215	1.00	27.63	C
ATOM	8530	CE1	PHE	H	177	61.416	7.090	35.615	1.00	27.68	C
ATOM	8531	CE2	PHE	H	177	59.996	5.189	35.246	1.00	26.69	C
ATOM	8532	CZ	PHE	H	177	60.353	6.491	34.944	1.00	27.27	C
ATOM	8533	N	ARG	H	178	65.224	4.457	39.878	1.00	31.24	N
ATOM	8534	CA	ARG	H	178	65.885	3.907	41.052	1.00	31.69	C
ATOM	8535	C	ARG	H	178	65.415	4.535	42.356	1.00	30.80	C
ATOM	8536	O	ARG	H	178	65.060	5.709	42.396	1.00	29.30	O
ATOM	8537	CB	ARG	H	178	67.404	4.075	40.930	1.00	33.79	C
ATOM	8538	CG	ARG	H	178	68.001	3.388	39.718	1.00	38.62	C
ATOM	8539	CD	ARG	H	178	69.510	3.228	39.866	1.00	41.50	C
ATOM	8540	NE	ARG	H	178	69.851	2.593	41.137	1.00	45.13	N
ATOM	8541	CZ	ARG	H	178	71.029	2.039	41.415	1.00	47.50	C
ATOM	8542	NH1	ARG	H	178	71.997	2.030	40.503	1.00	48.51	N
ATOM	8543	NH2	ARG	H	178	71.240	1.490	42.607	1.00	48.12	N
ATOM	8544	N	CYS	H	179	65.420	3.727	43.420	1.00	30.39	N
ATOM	8545	CA	CYS	H	179	65.042	4.166	44.756	1.00	31.12	C
ATOM	8546	C	CYS	H	179	65.958	3.453	45.753	1.00	31.65	C
ATOM	8547	O	CYS	H	179	65.517	2.600	46.535	1.00	29.30	O
ATOM	8548	CB	CYS	H	179	63.582	3.810	45.039	1.00	32.01	C
ATOM	8549	SG	CYS	H	179	62.446	4.620	43.899	1.00	33.46	S
ATOM	8550	N	PRO	H	180	67.260	3.794	45.730	1.00	31.88	N
ATOM	8551	CA	PRO	H	180	68.246	3.178	46.628	1.00	32.79	C
ATOM	8552	C	PRO	H	180	67.774	3.257	48.072	1.00	32.81	C
ATOM	8553	O	PRO	H	180	67.543	4.345	48.594	1.00	32.89	O
ATOM	8554	CB	PRO	H	180	69.501	4.008	46.378	1.00	32.58	C
ATOM	8555	CG	PRO	H	180	69.347	4.405	44.941	1.00	32.95	C
ATOM	8556	CD	PRO	H	180	67.894	4.811	44.879	1.00	32.19	C
ATOM	8557	N	ALA	H	181	67.621	2.106	48.717	1.00	33.06	N
ATOM	8558	CA	ALA	H	181	67.143	2.102	50.094	1.00	35.06	C
ATOM	8559	C	ALA	H	181	67.959	1.268	51.070	1.00	36.08	C
ATOM	8560	O	ALA	H	181	68.712	0.371	50.681	1.00	35.98	O
ATOM	8561	CB	ALA	H	181	65.681	1.646	50.138	1.00	34.31	C
ATOM	8562	N	GLY	H	182	67.779	1.584	52.350	1.00	36.73	N
ATOM	8563	CA	GLY	H	182	68.449	0.874	53.423	1.00	37.41	C
ATOM	8564	C	GLY	H	182	67.396	0.466	54.438	1.00	38.30	C
ATOM	8565	O	GLY	H	182	66.236	0.872	54.319	1.00	37.63	O
ATOM	8566	N	GLY	H	183	67.786	-0.331	55.430	1.00	38.77	N
ATOM	8567	CA	GLY	H	183	66.843	-0.768	56.447	1.00	39.20	C
ATOM	8568	C	GLY	H	183	67.203	-2.112	57.061	1.00	40.18	C
ATOM	8569	O	GLY	H	183	67.873	-2.932	56.436	1.00	40.21	O
ATOM	8570	N	ASN	H	184	66.740	-2.347	58.284	1.00	40.96	N
ATOM	8571	CA	ASN	H	184	67.026	-3.584	58.993	1.00	41.48	C
ATOM	8572	C	ASN	H	184	65.809	-4.038	59.785	1.00	41.66	C
ATOM	8573	O	ASN	H	184	65.433	-3.406	60.764	1.00	41.94	O
ATOM	8574	CB	ASN	H	184	68.209	-3.365	59.942	1.00	41.99	C
ATOM	8575	CG	ASN	H	184	68.613	-4.627	60.689	1.00	43.13	C
ATOM	8576	OD1	ASN	H	184	69.569	-4.612	61.464	1.00	43.80	O
ATOM	8577	ND2	ASN	H	184	67.889	-5.720	60.463	1.00	43.04	N

Table 3

ATOM	8578	N	PRO	H	185	65.207	-5.171	59.400	1.00	42.08	N
ATOM	8579	CA	PRO	H	185	65.603	-6.036	58.287	1.00	42.78	C
ATOM	8580	C	PRO	H	185	65.487	-5.416	56.893	1.00	43.55	C
ATOM	8581	O	PRO	H	185	64.825	-4.387	56.701	1.00	43.80	O
ATOM	8582	CB	PRO	H	185	64.694	-7.253	58.469	1.00	42.73	C
ATOM	8583	CG	PRO	H	185	63.469	-6.662	59.064	1.00	42.91	C
ATOM	8584	CD	PRO	H	185	64.032	-5.724	60.094	1.00	41.94	C
ATOM	8585	N	MET	H	186	66.148	-6.050	55.927	1.00	43.56	N
ATOM	8586	CA	MET	H	186	66.137	-5.585	54.547	1.00	43.87	C
ATOM	8587	C	MET	H	186	64.720	-5.393	54.045	1.00	42.88	C
ATOM	8588	O	MET	H	186	63.924	-6.333	54.010	1.00	42.19	O
ATOM	8589	CB	MET	H	186	66.854	-6.582	53.638	1.00	45.83	C
ATOM	8590	CG	MET	H	186	68.277	-6.195	53.298	1.00	48.98	C
ATOM	8591	SD	MET	H	186	68.350	-4.713	52.263	1.00	51.20	S
ATOM	8592	CE	MET	H	186	68.901	-3.490	53.482	1.00	51.08	C
ATOM	8593	N	PRO	H	187	64.380	-4.163	53.653	1.00	41.92	N
ATOM	8594	CA	PRO	H	187	63.027	-3.912	53.156	1.00	41.63	C
ATOM	8595	C	PRO	H	187	62.761	-4.492	51.763	1.00	41.02	C
ATOM	8596	O	PRO	H	187	63.684	-4.696	50.971	1.00	40.91	O
ATOM	8597	CB	PRO	H	187	62.917	-2.388	53.201	1.00	41.73	C
ATOM	8598	CG	PRO	H	187	64.321	-1.939	52.994	1.00	42.27	C
ATOM	8599	CD	PRO	H	187	65.117	-2.902	53.846	1.00	41.98	C
ATOM	8600	N	THR	H	188	61.492	-4.773	51.487	1.00	40.31	N
ATOM	8601	CA	THR	H	188	61.086	-5.305	50.197	1.00	40.35	C
ATOM	8602	C	THR	H	188	60.740	-4.127	49.291	1.00	40.63	C
ATOM	8603	O	THR	H	188	60.550	-3.010	49.761	1.00	41.57	O
ATOM	8604	CB	THR	H	188	59.875	-6.242	50.340	1.00	39.84	C
ATOM	8605	OG1	THR	H	188	58.766	-5.523	50.894	1.00	40.00	O
ATOM	8606	CG2	THR	H	188	60.223	-7.405	51.254	1.00	38.95	C
ATOM	8607	N	MET	H	189	60.646	-4.390	47.997	1.00	40.93	N
ATOM	8608	CA	MET	H	189	60.376	-3.356	47.013	1.00	41.37	C
ATOM	8609	C	MET	H	189	59.282	-3.777	46.036	1.00	40.54	C
ATOM	8610	O	MET	H	189	59.279	-4.906	45.551	1.00	40.87	O
ATOM	8611	CB	MET	H	189	61.684	-3.076	46.258	1.00	43.68	C
ATOM	8612	CG	MET	H	189	61.549	-2.518	44.858	1.00	47.65	C
ATOM	8613	SD	MET	H	189	61.934	-0.765	44.822	1.00	53.13	S
ATOM	8614	CE	MET	H	189	60.298	-0.119	45.325	1.00	51.14	C
ATOM	8615	N	ARG	H	190	58.357	-2.863	45.758	1.00	39.03	N
ATOM	8616	CA	ARG	H	190	57.272	-3.111	44.815	1.00	38.27	C
ATOM	8617	C	ARG	H	190	57.087	-1.863	43.955	1.00	36.15	C
ATOM	8618	O	ARG	H	190	57.212	-0.750	44.462	1.00	35.06	O
ATOM	8619	CB	ARG	H	190	55.962	-3.388	45.551	1.00	40.41	C
ATOM	8620	CG	ARG	H	190	56.086	-4.286	46.753	1.00	44.73	C
ATOM	8621	CD	ARG	H	190	54.723	-4.863	47.109	1.00	47.23	C
ATOM	8622	NE	ARG	H	190	53.677	-3.841	47.119	1.00	50.38	N
ATOM	8623	CZ	ARG	H	190	53.563	-2.882	48.035	1.00	51.38	C
ATOM	8624	NH1	ARG	H	190	54.432	-2.803	49.036	1.00	52.06	N
ATOM	8625	NH2	ARG	H	190	52.576	-1.999	47.949	1.00	52.44	N
ATOM	8626	N	TRP	H	191	56.790	-2.046	42.669	1.00	34.17	N
ATOM	8627	CA	TRP	H	191	56.575	-0.912	41.770	1.00	33.18	C
ATOM	8628	C	TRP	H	191	55.133	-0.826	41.275	1.00	32.69	C
ATOM	8629	O	TRP	H	191	54.528	-1.831	40.913	1.00	33.43	O
ATOM	8630	CB	TRP	H	191	57.512	-0.987	40.569	1.00	33.46	C
ATOM	8631	CG	TRP	H	191	58.941	-0.736	40.908	1.00	33.49	C
ATOM	8632	CD1	TRP	H	191	59.846	-1.645	41.370	1.00	33.78	C
ATOM	8633	CD2	TRP	H	191	59.628	0.519	40.836	1.00	32.79	C
ATOM	8634	NE1	TRP	H	191	61.059	-1.034	41.589	1.00	34.46	N
ATOM	8635	CE2	TRP	H	191	60.955	0.293	41.271	1.00	32.88	C
ATOM	8636	CE3	TRP	H	191	59.252	1.811	40.450	1.00	31.84	C
ATOM	8637	CZ2	TRP	H	191	61.909	1.313	41.331	1.00	32.39	C
ATOM	8638	CZ3	TRP	H	191	60.199	2.829	40.512	1.00	31.53	C
ATOM	8639	CH2	TRP	H	191	61.516	2.571	40.949	1.00	32.25	C
ATOM	8640	N	LEU	H	192	54.591	0.382	41.256	1.00	31.74	N
ATOM	8641	CA	LEU	H	192	53.225	0.590	40.808	1.00	31.83	C
ATOM	8642	C	LEU	H	192	53.202	1.484	39.575	1.00	31.69	C
ATOM	8643	O	LEU	H	192	54.067	2.356	39.411	1.00	31.36	O

Table 3

ATOM	8644	CB	LEU	H	192	52.405	1.258	41.922	1.00	32.15	C
ATOM	8645	CG	LEU	H	192	52.519	0.633	43.320	1.00	33.26	C
ATOM	8646	CD1	LEU	H	192	51.813	1.518	44.342	1.00	33.37	C
ATOM	8647	CD2	LEU	H	192	51.928	-0.774	43.308	1.00	32.33	C
ATOM	8648	N	LYS	H	193	52.228	1.247	38.700	1.00	31.27	C
ATOM	8649	CA	LYS	H	193	52.056	2.078	37.521	1.00	31.38	C
ATOM	8650	C	LYS	H	193	50.704	2.745	37.724	1.00	32.24	C
ATOM	8651	O	LYS	H	193	49.682	2.061	37.839	1.00	32.34	C
ATOM	8652	CB	LYS	H	193	52.032	1.263	36.230	1.00	30.70	C
ATOM	8653	CG	LYS	H	193	51.719	2.146	35.016	1.00	31.36	C
ATOM	8654	CD	LYS	H	193	51.678	1.383	33.707	1.00	32.10	C
ATOM	8655	CE	LYS	H	193	51.375	2.330	32.542	1.00	32.57	C
ATOM	8656	NZ	LYS	H	193	51.390	1.655	31.212	1.00	31.31	N
ATOM	8657	N	ASN	H	194	50.700	4.073	37.775	1.00	32.87	N
ATOM	8658	CA	ASN	H	194	49.466	4.821	37.980	1.00	34.49	C
ATOM	8659	C	ASN	H	194	48.725	4.323	39.225	1.00	35.42	C
ATOM	8660	O	ASN	H	194	47.523	4.050	39.177	1.00	34.66	O
ATOM	8661	CB	ASN	H	194	48.558	4.699	36.757	1.00	35.20	C
ATOM	8662	CG	ASN	H	194	49.175	5.295	35.520	1.00	37.23	C
ATOM	8663	OD1	ASN	H	194	49.780	6.377	35.566	1.00	37.24	O
ATOM	8664	ND2	ASN	H	194	49.021	4.604	34.396	1.00	38.07	O
ATOM	8665	N	GLY	H	195	49.465	4.185	40.324	1.00	35.49	N
ATOM	8666	CA	GLY	H	195	48.894	3.755	41.588	1.00	35.87	C
ATOM	8667	C	GLY	H	195	48.380	2.331	41.728	1.00	36.60	C
ATOM	8668	O	GLY	H	195	47.733	2.012	42.726	1.00	37.28	O
ATOM	8669	N	LYS	H	196	48.659	1.470	40.756	1.00	36.84	N
ATOM	8670	CA	LYS	H	196	48.200	0.083	40.813	1.00	36.47	C
ATOM	8671	C	LYS	H	196	49.342	-0.859	40.468	1.00	36.66	C
ATOM	8672	O	LYS	H	196	50.306	-0.458	39.813	1.00	36.79	O
ATOM	8673	CB	LYS	H	196	47.047	-0.144	39.826	1.00	36.59	C
ATOM	8674	N	GLU	H	197	49.224	-2.110	40.898	1.00	36.27	N
ATOM	8675	CA	GLU	H	197	50.250	-3.111	40.628	1.00	36.93	C
ATOM	8676	C	GLU	H	197	50.646	-3.071	39.159	1.00	37.24	C
ATOM	8677	O	GLU	H	197	49.788	-3.011	38.277	1.00	37.37	O
ATOM	8678	CB	GLU	H	197	49.743	-4.513	40.978	1.00	36.22	C
ATOM	8679	N	PHE	H	198	51.955	-3.088	38.912	1.00	37.40	N
ATOM	8680	CA	PHE	H	198	52.519	-3.059	37.564	1.00	37.00	C
ATOM	8681	C	PHE	H	198	52.834	-4.508	37.209	1.00	38.01	C
ATOM	8682	O	PHE	H	198	53.680	-5.140	37.850	1.00	38.55	O
ATOM	8683	CB	PHE	H	198	53.810	-2.225	37.557	1.00	36.91	C
ATOM	8684	CG	PHE	H	198	54.419	-2.007	36.182	1.00	36.86	C
ATOM	8685	CD1	PHE	H	198	55.758	-1.631	36.062	1.00	36.29	C
ATOM	8686	CD2	PHE	H	198	53.660	-2.138	35.020	1.00	36.71	C
ATOM	8687	CE1	PHE	H	198	56.335	-1.386	34.809	1.00	36.73	C
ATOM	8688	CE2	PHE	H	198	54.224	-1.895	33.759	1.00	37.32	C
ATOM	8689	CZ	PHE	H	198	55.565	-1.518	33.653	1.00	37.03	C
ATOM	8690	N	LYS	H	199	52.152	-5.037	36.197	1.00	38.20	N
ATOM	8691	CA	LYS	H	199	52.361	-6.417	35.775	1.00	38.43	C
ATOM	8692	C	LYS	H	199	53.114	-6.528	34.449	1.00	38.45	C
ATOM	8693	O	LYS	H	199	53.064	-5.622	33.615	1.00	37.89	O
ATOM	8694	CB	LYS	H	199	51.011	-7.130	35.653	1.00	39.27	C
ATOM	8695	N	GLN	H	200	53.808	-7.646	34.256	1.00	38.02	N
ATOM	8696	CA	GLN	H	200	54.568	-7.875	33.032	1.00	38.31	C
ATOM	8697	C	GLN	H	200	53.728	-7.698	31.768	1.00	39.07	C
ATOM	8698	O	GLN	H	200	54.214	-7.170	30.765	1.00	39.42	O
ATOM	8699	CB	GLN	H	200	55.172	-9.286	33.015	1.00	37.92	C
ATOM	8700	CG	GLN	H	200	56.330	-9.514	33.978	1.00	37.78	C
ATOM	8701	CD	GLN	H	200	57.578	-8.707	33.622	1.00	37.85	C
ATOM	8702	OE1	GLN	H	200	57.985	-8.634	32.455	1.00	37.06	O
ATOM	8703	NE2	GLN	H	200	58.197	-8.111	34.632	1.00	37.78	N
ATOM	8704	N	GLU	H	201	52.473	-8.136	31.803	1.00	39.36	N
ATOM	8705	CA	GLU	H	201	51.623	-8.020	30.621	1.00	39.62	C
ATOM	8706	C	GLU	H	201	51.113	-6.596	30.366	1.00	39.23	C
ATOM	8707	O	GLU	H	201	50.416	-6.350	29.381	1.00	38.74	O
ATOM	8708	CB	GLU	H	201	50.431	-8.986	30.713	1.00	41.36	C
ATOM	8709	CG	GLU	H	201	49.343	-8.550	31.678	1.00	44.13	C

Table 3

ATOM	8710	CD	GLU	H	201	49.234	-9.456	32.888	1.00	46.42	C
ATOM	8711	OE1	GLU	H	201	50.276	-9.701	33.541	1.00	47.29	O
ATOM	8712	OE2	GLU	H	201	48.105	-9.916	33.189	1.00	47.42	O
ATOM	8713	N	HIS	H	202	51.465	-5.656	31.236	1.00	39.09	N
ATOM	8714	CA	HIS	H	202	51.015	-4.281	31.060	1.00	38.39	C
ATOM	8715	C	HIS	H	202	51.687	-3.527	29.901	1.00	37.42	C
ATOM	8716	O	HIS	H	202	51.258	-2.427	29.541	1.00	36.70	O
ATOM	8717	CB	HIS	H	202	51.164	-3.515	32.376	1.00	40.07	C
ATOM	8718	CG	HIS	H	202	50.119	-3.863	33.391	1.00	42.25	C
ATOM	8719	ND1	HIS	H	202	48.978	-4.575	33.072	1.00	41.73	N
ATOM	8720	CD2	HIS	H	202	50.017	-3.563	34.709	1.00	42.67	C
ATOM	8721	CE1	HIS	H	202	48.222	-4.695	34.148	1.00	42.51	C
ATOM	8722	NE2	HIS	H	202	48.827	-4.090	35.155	1.00	43.17	N
ATOM	8723	N	ARG	H	203	52.731	-4.120	29.315	1.00	36.47	N
ATOM	8724	CA	ARG	H	203	53.429	-3.508	28.169	1.00	35.54	C
ATOM	8725	C	ARG	H	203	54.157	-4.563	27.339	1.00	35.60	C
ATOM	8726	O	ARG	H	203	54.540	-5.614	27.850	1.00	35.55	O
ATOM	8727	CB	ARG	H	203	54.445	-2.438	28.617	1.00	34.59	C
ATOM	8728	CG	ARG	H	203	55.832	-2.971	29.006	1.00	33.37	C
ATOM	8729	CD	ARG	H	203	56.737	-1.854	29.562	1.00	32.84	C
ATOM	8730	NE	ARG	H	203	57.270	-0.955	28.533	1.00	30.57	N
ATOM	8731	CZ	ARG	H	203	58.413	-1.159	27.882	1.00	29.72	C
ATOM	8732	NH1	ARG	H	203	59.147	-2.234	28.150	1.00	29.07	N
ATOM	8733	NH2	ARG	H	203	58.829	-0.285	26.973	1.00	29.38	N
ATOM	8734	N	ILE	H	204	54.345	-4.284	26.054	1.00	35.87	N
ATOM	8735	CA	ILE	H	204	55.050	-5.221	25.181	1.00	37.45	C
ATOM	8736	C	ILE	H	204	56.449	-5.450	25.769	1.00	37.69	C
ATOM	8737	O	ILE	H	204	57.172	-4.492	26.053	1.00	37.77	O
ATOM	8738	CB	ILE	H	204	55.232	-4.654	23.741	1.00	38.36	C
ATOM	8739	CG1	ILE	H	204	53.878	-4.332	23.099	1.00	39.88	C
ATOM	8740	CG2	ILE	H	204	55.968	-5.673	22.876	1.00	39.29	C
ATOM	8741	CD1	ILE	H	204	53.061	-5.548	22.712	1.00	40.07	C
ATOM	8742	N	GLY	H	205	56.824	-6.709	25.958	1.00	37.43	N
ATOM	8743	CA	GLY	H	205	58.138	-7.011	26.500	1.00	37.45	C
ATOM	8744	C	GLY	H	205	58.290	-6.855	28.002	1.00	37.05	C
ATOM	8745	O	GLY	H	205	59.377	-7.089	28.538	1.00	37.32	O
ATOM	8746	N	GLY	H	206	57.217	-6.456	28.683	1.00	36.41	N
ATOM	8747	CA	GLY	H	206	57.271	-6.298	30.129	1.00	35.85	C
ATOM	8748	C	GLY	H	206	58.381	-5.406	30.661	1.00	35.30	C
ATOM	8749	O	GLY	H	206	58.754	-4.416	30.034	1.00	34.59	O
ATOM	8750	N	TYR	H	207	58.907	-5.757	31.830	1.00	36.01	N
ATOM	8751	CA	TYR	H	207	59.967	-4.974	32.448	1.00	36.69	C
ATOM	8752	C	TYR	H	207	60.936	-5.836	33.257	1.00	36.92	C
ATOM	8753	O	TYR	H	207	60.720	-7.037	33.437	1.00	35.87	O
ATOM	8754	CB	TYR	H	207	59.362	-3.901	33.352	1.00	37.45	C
ATOM	8755	CG	TYR	H	207	58.487	-4.456	34.449	1.00	38.55	C
ATOM	8756	CD1	TYR	H	207	57.111	-4.617	34.267	1.00	38.56	C
ATOM	8757	CD2	TYR	H	207	59.040	-4.837	35.673	1.00	39.04	C
ATOM	8758	CE1	TYR	H	207	56.302	-5.144	35.289	1.00	39.03	C
ATOM	8759	CE2	TYR	H	207	58.253	-5.367	36.692	1.00	39.41	C
ATOM	8760	CZ	TYR	H	207	56.886	-5.518	36.499	1.00	40.67	C
ATOM	8761	OH	TYR	H	207	56.119	-6.041	37.523	1.00	41.90	O
ATOM	8762	N	LYS	H	208	62.005	-5.210	33.744	1.00	36.64	N
ATOM	8763	CA	LYS	H	208	62.998	-5.917	34.533	1.00	37.93	C
ATOM	8764	C	LYS	H	208	63.275	-5.173	35.839	1.00	38.82	C
ATOM	8765	O	LYS	H	208	63.281	-3.942	35.879	1.00	38.86	O
ATOM	8766	CB	LYS	H	208	64.296	-6.076	33.729	1.00	37.63	C
ATOM	8767	CG	LYS	H	208	64.115	-6.787	32.381	1.00	37.50	C
ATOM	8768	CD	LYS	H	208	65.439	-6.901	31.637	1.00	35.87	C
ATOM	8769	CE	LYS	H	208	65.296	-7.633	30.323	1.00	34.97	C
ATOM	8770	NZ	LYS	H	208	66.601	-7.668	29.613	1.00	35.16	N
ATOM	8771	N	VAL	H	209	63.499	-5.931	36.906	1.00	40.16	N
ATOM	8772	CA	VAL	H	209	63.782	-5.357	38.218	1.00	42.42	C
ATOM	8773	C	VAL	H	209	65.049	-5.964	38.793	1.00	43.29	C
ATOM	8774	O	VAL	H	209	65.201	-7.181	38.817	1.00	44.11	O
ATOM	8775	CB	VAL	H	209	62.623	-5.625	39.221	1.00	42.75	C

Table 3

ATOM	8776	CG1	VAL	H	209	63.016	-5.146	40.611	1.00	43.25	C
ATOM	8777	CG2	VAL	H	209	61.355	-4.912	38.768	1.00	42.93	C
ATOM	8778	N	ARG	H	210	65.960	-5.109	39.244	1.00	44.93	N
ATOM	8779	CA	ARG	H	210	67.213	-5.556	39.851	1.00	45.95	C
ATOM	8780	C	ARG	H	210	67.195	-5.131	41.323	1.00	46.32	C
ATOM	8781	O	ARG	H	210	67.588	-4.016	41.656	1.00	46.91	O
ATOM	8782	CB	ARG	H	210	68.412	-4.920	39.135	1.00	45.23	C
ATOM	8783	N	ASN	H	211	66.722	-6.025	42.188	1.00	46.95	N
ATOM	8784	CA	ASN	H	211	66.635	-5.771	43.626	1.00	47.41	C
ATOM	8785	C	ASN	H	211	67.921	-5.174	44.200	1.00	47.38	C
ATOM	8786	O	ASN	H	211	67.883	-4.252	45.015	1.00	47.66	O
ATOM	8787	CB	ASN	H	211	66.315	-7.079	44.354	1.00	46.75	C
ATOM	8788	N	GLN	H	212	69.056	-5.711	43.765	1.00	47.31	N
ATOM	8789	CA	GLN	H	212	70.361	-5.251	44.226	1.00	46.65	C
ATOM	8790	C	GLN	H	212	70.569	-3.754	43.988	1.00	45.86	C
ATOM	8791	O	GLN	H	212	71.284	-3.095	44.744	1.00	46.53	O
ATOM	8792	CB	GLN	H	212	71.464	-6.046	43.517	1.00	46.71	C
ATOM	8793	N	HIS	H	213	69.947	-3.223	42.938	1.00	44.51	N
ATOM	8794	CA	HIS	H	213	70.082	-1.804	42.617	1.00	43.04	C
ATOM	8795	C	HIS	H	213	68.806	-0.997	42.882	1.00	39.85	C
ATOM	8796	O	HIS	H	213	68.765	0.201	42.598	1.00	38.79	O
ATOM	8797	CB	HIS	H	213	70.487	-1.631	41.146	1.00	46.42	C
ATOM	8798	CG	HIS	H	213	71.713	-2.398	40.757	1.00	49.71	C
ATOM	8799	ND1	HIS	H	213	72.887	-2.345	41.479	1.00	51.34	N
ATOM	8800	CD2	HIS	H	213	71.948	-3.230	39.715	1.00	50.77	C
ATOM	8801	CE1	HIS	H	213	73.791	-3.115	40.899	1.00	52.07	C
ATOM	8802	NE2	HIS	H	213	73.247	-3.663	39.827	1.00	51.31	N
ATOM	8803	N	TRP	H	214	67.788	-1.650	43.441	1.00	36.77	N
ATOM	8804	CA	TRP	H	214	66.497	-1.009	43.730	1.00	34.70	C
ATOM	8805	C	TRP	H	214	66.008	-0.263	42.493	1.00	33.04	C
ATOM	8806	O	TRP	H	214	65.596	0.896	42.565	1.00	31.58	O
ATOM	8807	CB	TRP	H	214	66.618	-0.032	44.906	1.00	34.83	C
ATOM	8808	CG	TRP	H	214	67.262	-0.625	46.124	1.00	35.66	C
ATOM	8809	CD1	TRP	H	214	68.591	-0.632	46.420	1.00	35.53	C
ATOM	8810	CD2	TRP	H	214	66.610	-1.344	47.184	1.00	35.05	C
ATOM	8811	NE1	TRP	H	214	68.810	-1.310	47.594	1.00	36.05	N
ATOM	8812	CE2	TRP	H	214	67.612	-1.760	48.083	1.00	35.32	C
ATOM	8813	CE3	TRP	H	214	65.276	-1.677	47.457	1.00	36.06	C
ATOM	8814	CZ2	TRP	H	214	67.326	-2.496	49.242	1.00	35.08	C
ATOM	8815	CZ3	TRP	H	214	64.987	-2.412	48.610	1.00	35.94	C
ATOM	8816	CH2	TRP	H	214	66.012	-2.812	49.487	1.00	35.22	C
ATOM	8817	N	SER	H	215	66.035	-0.949	41.356	1.00	32.01	N
ATOM	8818	CA	SER	H	215	65.645	-0.330	40.100	1.00	31.21	C
ATOM	8819	C	SER	H	215	64.560	-1.030	39.289	1.00	30.29	C
ATOM	8820	O	SER	H	215	64.356	-2.242	39.399	1.00	30.47	O
ATOM	8821	CB	SER	H	215	66.878	-0.211	39.218	1.00	31.16	C
ATOM	8822	OG	SER	H	215	67.349	-1.511	38.910	1.00	31.69	O
ATOM	8823	N	LEU	H	216	63.888	-0.240	38.455	1.00	29.28	N
ATOM	8824	CA	LEU	H	216	62.857	-0.728	37.539	1.00	27.87	C
ATOM	8825	C	LEU	H	216	63.351	-0.322	36.152	1.00	26.76	C
ATOM	8826	O	LEU	H	216	63.692	0.839	35.932	1.00	26.11	O
ATOM	8827	CB	LEU	H	216	61.499	-0.066	37.800	1.00	28.18	C
ATOM	8828	CG	LEU	H	216	60.431	-0.226	36.700	1.00	27.88	C
ATOM	8829	CD1	LEU	H	216	59.966	-1.669	36.632	1.00	27.76	C
ATOM	8830	CD2	LEU	H	216	59.244	0.672	36.992	1.00	27.10	C
ATOM	8831	N	ILE	H	217	63.382	-1.276	35.224	1.00	26.12	N
ATOM	8832	CA	ILE	H	217	63.859	-1.009	33.867	1.00	26.88	C
ATOM	8833	C	ILE	H	217	62.852	-1.336	32.761	1.00	27.40	C
ATOM	8834	O	ILE	H	217	62.284	-2.434	32.718	1.00	26.58	O
ATOM	8835	CB	ILE	H	217	65.145	-1.806	33.572	1.00	27.88	C
ATOM	8836	CG1	ILE	H	217	66.264	-1.355	34.505	1.00	28.58	C
ATOM	8837	CG2	ILE	H	217	65.553	-1.626	32.120	1.00	27.63	C
ATOM	8838	CD1	ILE	H	217	67.515	-2.173	34.340	1.00	30.18	C
ATOM	8839	N	MET	H	218	62.642	-0.374	31.866	1.00	27.21	N
ATOM	8840	CA	MET	H	218	61.744	-0.548	30.729	1.00	28.46	C
ATOM	8841	C	MET	H	218	62.535	-0.223	29.462	1.00	29.47	C

Table 3

ATOM	8842	O	MET	H	218	63.041	0.890	29.300	1.00	29.05	O
ATOM	8843	CB	MET	H	218	60.512	0.362	30.838	1.00	28.18	C
ATOM	8844	CG	MET	H	218	59.474	-0.101	31.867	1.00	29.87	C
ATOM	8845	SD	MET	H	218	58.118	1.083	32.139	1.00	31.17	S
ATOM	8846	CE	MET	H	218	58.975	2.346	33.116	1.00	32.28	C
ATOM	8847	N	GLU	H	219	62.646	-1.213	28.580	1.00	29.76	N
ATOM	8848	CA	GLU	H	219	63.386	-1.085	27.329	1.00	30.45	C
ATOM	8849	C	GLU	H	219	62.485	-0.672	26.166	1.00	31.67	C
ATOM	8850	O	GLU	H	219	61.289	-0.983	26.157	1.00	31.77	O
ATOM	8851	CB	GLU	H	219	64.067	-2.427	27.017	1.00	30.73	C
ATOM	8852	CG	GLU	H	219	64.930	-2.941	28.176	1.00	30.88	C
ATOM	8853	CD	GLU	H	219	65.103	-4.453	28.183	1.00	32.39	C
ATOM	8854	OE1	GLU	H	219	64.093	-5.162	27.990	1.00	32.44	O
ATOM	8855	OE2	GLU	H	219	66.240	-4.937	28.404	1.00	32.35	O
ATOM	8856	N	SER	H	220	63.068	0.040	25.198	1.00	31.54	N
ATOM	8857	CA	SER	H	220	62.367	0.504	24.001	1.00	32.05	C
ATOM	8858	C	SER	H	220	61.024	1.162	24.283	1.00	32.14	C
ATOM	8859	O	SER	H	220	59.996	0.720	23.764	1.00	32.54	O
ATOM	8860	CB	SER	H	220	62.153	-0.668	23.057	1.00	33.03	C
ATOM	8861	OG	SER	H	220	63.347	-1.411	22.927	1.00	35.98	O
ATOM	8862	N	VAL	H	221	61.035	2.227	25.080	1.00	31.04	N
ATOM	8863	CA	VAL	H	221	59.801	2.909	25.443	1.00	31.01	C
ATOM	8864	C	VAL	H	221	59.039	3.497	24.254	1.00	31.75	C
ATOM	8865	O	VAL	H	221	59.632	3.864	23.229	1.00	31.26	O
ATOM	8866	CB	VAL	H	221	60.058	4.033	26.481	1.00	28.69	C
ATOM	8867	CG1	VAL	H	221	60.706	3.452	27.714	1.00	29.39	C
ATOM	8868	CG2	VAL	H	221	60.936	5.115	25.883	1.00	30.09	C
ATOM	8869	N	VAL	H	222	57.718	3.587	24.418	1.00	31.66	N
ATOM	8870	CA	VAL	H	222	56.827	4.121	23.398	1.00	32.31	C
ATOM	8871	C	VAL	H	222	55.855	5.081	24.067	1.00	33.19	C
ATOM	8872	O	VAL	H	222	55.736	5.102	25.294	1.00	33.57	O
ATOM	8873	CB	VAL	H	222	56.028	2.987	22.702	1.00	32.00	C
ATOM	8874	CG1	VAL	H	222	56.954	2.170	21.815	1.00	32.20	C
ATOM	8875	CG2	VAL	H	222	55.384	2.081	23.739	1.00	30.79	C
ATOM	8876	N	PRO	H	223	55.151	5.895	23.271	1.00	34.18	N
ATOM	8877	CA	PRO	H	223	54.185	6.863	23.800	1.00	34.61	C
ATOM	8878	C	PRO	H	223	53.232	6.316	24.859	1.00	34.84	C
ATOM	8879	O	PRO	H	223	52.960	6.988	25.848	1.00	35.37	O
ATOM	8880	CB	PRO	H	223	53.461	7.341	22.544	1.00	34.95	C
ATOM	8881	CG	PRO	H	223	54.580	7.344	21.527	1.00	34.86	C
ATOM	8882	CD	PRO	H	223	55.285	6.029	21.804	1.00	34.68	C
ATOM	8883	N	SER	H	224	52.734	5.096	24.667	1.00	35.09	N
ATOM	8884	CA	SER	H	224	51.811	4.509	25.637	1.00	34.94	C
ATOM	8885	C	SER	H	224	52.397	4.247	27.039	1.00	34.92	C
ATOM	8886	O	SER	H	224	51.646	3.985	27.977	1.00	34.65	O
ATOM	8887	CB	SER	H	224	51.206	3.215	25.077	1.00	35.60	C
ATOM	8888	OG	SER	H	224	52.203	2.360	24.545	1.00	37.29	O
ATOM	8889	N	ASP	H	225	53.723	4.322	27.186	1.00	34.37	N
ATOM	8890	CA	ASP	H	225	54.361	4.107	28.491	1.00	33.89	C
ATOM	8891	C	ASP	H	225	54.233	5.318	29.422	1.00	33.37	C
ATOM	8892	O	ASP	H	225	54.572	5.252	30.604	1.00	33.39	O
ATOM	8893	CB	ASP	H	225	55.844	3.754	28.318	1.00	34.24	C
ATOM	8894	CG	ASP	H	225	56.045	2.352	27.793	1.00	35.08	C
ATOM	8895	OD1	ASP	H	225	55.378	1.430	28.311	1.00	34.26	O
ATOM	8896	OD2	ASP	H	225	56.871	2.164	26.876	1.00	35.90	O
ATOM	8897	N	LYS	H	226	53.758	6.430	28.875	1.00	33.82	N
ATOM	8898	CA	LYS	H	226	53.559	7.653	29.648	1.00	33.74	C
ATOM	8899	C	LYS	H	226	52.706	7.352	30.881	1.00	32.86	C
ATOM	8900	O	LYS	H	226	51.705	6.643	30.783	1.00	33.43	O
ATOM	8901	CB	LYS	H	226	52.846	8.679	28.772	1.00	35.12	C
ATOM	8902	CG	LYS	H	226	52.420	9.954	29.475	1.00	36.96	C
ATOM	8903	CD	LYS	H	226	51.656	10.846	28.506	1.00	38.84	C
ATOM	8904	CE	LYS	H	226	51.319	12.178	29.139	1.00	41.97	C
ATOM	8905	NZ	LYS	H	226	52.566	12.900	29.517	1.00	43.84	N
ATOM	8906	N	GLY	H	227	53.102	7.882	32.035	1.00	32.12	N
ATOM	8907	CA	GLY	H	227	52.342	7.664	33.256	1.00	31.37	C

Table 3

ATOM	8908	C	GLY	H	227	53.187	7.849	34.509	1.00	31.81	C
ATOM	8909	O	GLY	H	227	54.310	8.355	34.435	1.00	31.79	O
ATOM	8910	N	ASN	H	228	52.646	7.447	35.655	1.00	31.03	N
ATOM	8911	CA	ASN	H	228	53.354	7.550	36.921	1.00	30.85	C
ATOM	8912	C	ASN	H	228	53.845	6.187	37.376	1.00	29.72	C
ATOM	8913	O	ASN	H	228	53.123	5.191	37.279	1.00	30.39	O
ATOM	8914	CB	ASN	H	228	52.454	8.138	38.002	1.00	32.32	C
ATOM	8915	CG	ASN	H	228	52.044	9.561	37.700	1.00	34.94	C
ATOM	8916	OD1	ASN	H	228	52.877	10.394	37.331	1.00	35.94	O
ATOM	8917	ND2	ASN	H	228	50.757	9.853	37.855	1.00	35.31	N
ATOM	8918	N	TYR	H	229	55.080	6.155	37.866	1.00	27.72	N
ATOM	8919	CA	TYR	H	229	55.689	4.928	38.362	1.00	27.25	C
ATOM	8920	C	TYR	H	229	56.153	5.166	39.799	1.00	27.25	C
ATOM	8921	O	TYR	H	229	57.006	6.020	40.061	1.00	26.34	O
ATOM	8922	CB	TYR	H	229	56.846	4.512	37.447	1.00	26.74	C
ATOM	8923	CG	TYR	H	229	56.372	4.151	36.054	1.00	26.75	C
ATOM	8924	CD1	TYR	H	229	56.148	5.131	35.081	1.00	26.36	C
ATOM	8925	CD2	TYR	H	229	56.083	2.830	35.725	1.00	26.67	C
ATOM	8926	CE1	TYR	H	229	55.645	4.793	33.817	1.00	25.79	C
ATOM	8927	CE2	TYR	H	229	55.584	2.488	34.474	1.00	25.91	C
ATOM	8928	CZ	TYR	H	229	55.368	3.464	33.528	1.00	26.33	C
ATOM	8929	OH	TYR	H	229	54.882	3.082	32.287	1.00	27.87	O
ATOM	8930	N	THR	H	230	55.568	4.405	40.722	1.00	26.69	N
ATOM	8931	CA	THR	H	230	55.852	4.537	42.145	1.00	26.63	C
ATOM	8932	C	THR	H	230	56.543	3.338	42.766	1.00	26.70	C
ATOM	8933	O	THR	H	230	56.150	2.194	42.548	1.00	26.96	O
ATOM	8934	CB	THR	H	230	54.550	4.774	42.930	1.00	27.14	C
ATOM	8935	OG1	THR	H	230	53.916	5.970	42.454	1.00	28.26	O
ATOM	8936	CG2	THR	H	230	54.834	4.896	44.425	1.00	27.42	C
ATOM	8937	N	CYS	H	231	57.568	3.611	43.562	1.00	27.11	N
ATOM	8938	CA	CYS	H	231	58.291	2.547	44.247	1.00	27.77	C
ATOM	8939	C	CYS	H	231	57.852	2.567	45.713	1.00	27.56	C
ATOM	8940	O	CYS	H	231	57.845	3.617	46.344	1.00	26.94	O
ATOM	8941	CB	CYS	H	231	59.803	2.791	44.160	1.00	28.81	C
ATOM	8942	SG	CYS	H	231	60.369	4.264	45.054	1.00	29.74	S
ATOM	8943	N	VAL	H	232	57.464	1.405	46.234	1.00	29.02	N
ATOM	8944	CA	VAL	H	232	57.048	1.257	47.632	1.00	30.32	C
ATOM	8945	C	VAL	H	232	58.065	0.337	48.328	1.00	31.10	C
ATOM	8946	O	VAL	H	232	58.294	-0.792	47.888	1.00	30.52	O
ATOM	8947	CB	VAL	H	232	55.634	0.617	47.747	1.00	30.65	C
ATOM	8948	CG1	VAL	H	232	55.164	0.652	49.189	1.00	29.14	C
ATOM	8949	CG2	VAL	H	232	54.644	1.368	46.855	1.00	30.28	C
ATOM	8950	N	VAL	H	233	58.664	0.822	49.415	1.00	31.38	N
ATOM	8951	CA	VAL	H	233	59.678	0.057	50.131	1.00	32.74	C
ATOM	8952	C	VAL	H	233	59.271	-0.123	51.583	1.00	33.12	C
ATOM	8953	O	VAL	H	233	58.919	0.846	52.253	1.00	34.28	O
ATOM	8954	CB	VAL	H	233	61.044	0.775	50.016	1.00	32.49	C
ATOM	8955	CG1	VAL	H	233	62.095	0.072	50.830	1.00	33.55	C
ATOM	8956	CG2	VAL	H	233	61.462	0.815	48.550	1.00	32.77	C
ATOM	8957	N	GLU	H	234	59.322	-1.354	52.082	1.00	33.62	N
ATOM	8958	CA	GLU	H	234	58.884	-1.588	53.453	1.00	34.62	C
ATOM	8959	C	GLU	H	234	59.435	-2.781	54.233	1.00	33.75	C
ATOM	8960	O	GLU	H	234	59.942	-3.754	53.671	1.00	33.82	O
ATOM	8961	CB	GLU	H	234	57.358	-1.656	53.465	1.00	36.46	C
ATOM	8962	CG	GLU	H	234	56.794	-2.727	52.553	1.00	39.69	C
ATOM	8963	CD	GLU	H	234	55.327	-2.489	52.180	1.00	43.48	C
ATOM	8964	OE1	GLU	H	234	54.753	-3.359	51.485	1.00	43.83	O
ATOM	8965	OE2	GLU	H	234	54.751	-1.436	52.564	1.00	43.30	O
ATOM	8966	N	ASN	H	235	59.337	-2.660	55.554	1.00	33.27	N
ATOM	8967	CA	ASN	H	235	59.739	-3.701	56.500	1.00	33.61	C
ATOM	8968	C	ASN	H	235	58.806	-3.533	57.700	1.00	33.99	C
ATOM	8969	O	ASN	H	235	57.882	-2.713	57.655	1.00	33.48	O
ATOM	8970	CB	ASN	H	235	61.225	-3.584	56.917	1.00	32.09	C
ATOM	8971	CG	ASN	H	235	61.535	-2.342	57.754	1.00	31.97	C
ATOM	8972	OD1	ASN	H	235	60.664	-1.759	58.388	1.00	31.33	O
ATOM	8973	ND2	ASN	H	235	62.807	-1.961	57.780	1.00	31.28	N

Table 3

ATOM	8974	N	GLU	H	236	59.039	-4.293	58.764	1.00	34.43	N
ATOM	8975	CA	GLU	H	236	58.196	-4.242	59.961	1.00	35.26	C
ATOM	8976	C	GLU	H	236	58.071	-2.876	60.657	1.00	35.71	C
ATOM	8977	O	GLU	H	236	57.095	-2.626	61.367	1.00	35.11	O
ATOM	8978	CB	GLU	H	236	58.695	-5.275	60.983	1.00	34.81	C
ATOM	8979	N	TYR	H	237	59.051	-1.998	60.462	1.00	35.47	N
ATOM	8980	CA	TYR	H	237	59.024	-0.684	61.103	1.00	35.87	C
ATOM	8981	C	TYR	H	237	58.606	0.489	60.216	1.00	35.74	C
ATOM	8982	O	TYR	H	237	58.679	1.636	60.645	1.00	35.72	O
ATOM	8983	CB	TYR	H	237	60.391	-0.351	61.703	1.00	36.51	C
ATOM	8984	CG	TYR	H	237	60.972	-1.460	62.527	1.00	38.57	C
ATOM	8985	CD1	TYR	H	237	62.116	-2.128	62.105	1.00	39.34	C
ATOM	8986	CD2	TYR	H	237	60.372	-1.857	63.723	1.00	38.70	C
ATOM	8987	CE1	TYR	H	237	62.655	-3.164	62.854	1.00	41.42	C
ATOM	8988	CE2	TYR	H	237	60.895	-2.889	64.475	1.00	40.61	C
ATOM	8989	CZ	TYR	H	237	62.043	-3.540	64.036	1.00	41.94	C
ATOM	8990	OH	TYR	H	237	62.593	-4.558	64.780	1.00	44.10	O
ATOM	8991	N	GLY	H	238	58.187	0.230	58.985	1.00	34.67	N
ATOM	8992	CA	GLY	H	238	57.784	1.352	58.160	1.00	34.62	C
ATOM	8993	C	GLY	H	238	57.605	1.088	56.682	1.00	34.06	C
ATOM	8994	O	GLY	H	238	58.008	0.046	56.163	1.00	34.41	O
ATOM	8995	N	SER	H	239	56.997	2.062	56.010	1.00	33.16	N
ATOM	8996	CA	SER	H	239	56.734	1.997	54.579	1.00	32.94	C
ATOM	8997	C	SER	H	239	56.846	3.394	53.977	1.00	32.43	C
ATOM	8998	O	SER	H	239	56.203	4.333	54.451	1.00	32.53	O
ATOM	8999	CB	SER	H	239	55.336	1.443	54.330	1.00	33.10	C
ATOM	9000	OG	SER	H	239	55.033	1.451	52.946	1.00	35.89	O
ATOM	9001	N	ILE	H	240	57.670	3.533	52.940	1.00	30.73	N
ATOM	9002	CA	ILE	H	240	57.865	4.823	52.277	1.00	29.58	C
ATOM	9003	C	ILE	H	240	57.766	4.656	50.764	1.00	28.89	C
ATOM	9004	O	ILE	H	240	58.017	3.574	50.248	1.00	28.79	O
ATOM	9005	CB	ILE	H	240	59.259	5.443	52.611	1.00	28.35	C
ATOM	9006	CG1	ILE	H	240	60.386	4.527	52.114	1.00	28.29	C
ATOM	9007	CG2	ILE	H	240	59.378	5.683	54.109	1.00	27.34	C
ATOM	9008	CD1	ILE	H	240	61.810	5.006	52.476	1.00	27.28	C
ATOM	9009	N	ASN	H	241	57.402	5.726	50.060	1.00	28.56	N
ATOM	9010	CA	ASN	H	241	57.281	5.676	48.604	1.00	28.26	C
ATOM	9011	C	ASN	H	241	57.780	6.944	47.911	1.00	28.17	C
ATOM	9012	O	ASN	H	241	57.936	7.995	48.534	1.00	28.13	O
ATOM	9013	CB	ASN	H	241	55.830	5.428	48.199	1.00	28.67	C
ATOM	9014	CG	ASN	H	241	54.884	6.490	48.733	1.00	30.86	C
ATOM	9015	OD1	ASN	H	241	54.186	6.281	49.737	1.00	32.41	O
ATOM	9016	ND2	ASN	H	241	54.864	7.639	48.078	1.00	30.28	N
ATOM	9017	N	HIS	H	242	58.008	6.829	46.605	1.00	27.60	N
ATOM	9018	CA	HIS	H	242	58.491	7.932	45.774	1.00	27.16	C
ATOM	9019	C	HIS	H	242	57.861	7.760	44.386	1.00	26.91	C
ATOM	9020	O	HIS	H	242	57.694	6.648	43.916	1.00	26.35	O
ATOM	9021	CB	HIS	H	242	60.019	7.852	45.658	1.00	26.94	C
ATOM	9022	CG	HIS	H	242	60.628	8.925	44.811	1.00	27.19	C
ATOM	9023	ND1	HIS	H	242	60.842	10.206	45.269	1.00	27.39	N
ATOM	9024	CD2	HIS	H	242	61.083	8.903	43.533	1.00	28.28	C
ATOM	9025	CE1	HIS	H	242	61.404	10.927	44.316	1.00	27.31	C
ATOM	9026	NE2	HIS	H	242	61.561	10.162	43.252	1.00	27.69	N
ATOM	9027	N	THR	H	243	57.526	8.859	43.725	1.00	27.18	N
ATOM	9028	CA	THR	H	243	56.894	8.755	42.423	1.00	28.17	C
ATOM	9029	C	THR	H	243	57.613	9.480	41.300	1.00	29.37	C
ATOM	9030	O	THR	H	243	58.041	10.629	41.452	1.00	28.73	O
ATOM	9031	CB	THR	H	243	55.421	9.242	42.492	1.00	28.46	C
ATOM	9032	OG1	THR	H	243	54.657	8.327	43.295	1.00	26.48	O
ATOM	9033	CG2	THR	H	243	54.814	9.327	41.091	1.00	27.09	C
ATOM	9034	N	TYR	H	244	57.744	8.773	40.179	1.00	29.94	N
ATOM	9035	CA	TYR	H	244	58.381	9.285	38.973	1.00	32.10	C
ATOM	9036	C	TYR	H	244	57.305	9.454	37.901	1.00	33.21	C
ATOM	9037	O	TYR	H	244	56.330	8.698	37.869	1.00	33.58	O
ATOM	9038	CB	TYR	H	244	59.422	8.283	38.448	1.00	32.60	C
ATOM	9039	CG	TYR	H	244	60.686	8.203	39.265	1.00	33.86	C

Table 3

ATOM	9040	CD1	TYR	H	244	61.081	7.005	39.862	1.00	34.01	C
ATOM	9041	CD2	TYR	H	244	61.504	9.323	39.424	1.00	33.69	C
ATOM	9042	CE1	TYR	H	244	62.274	6.922	40.601	1.00	34.99	C
ATOM	9043	CE2	TYR	H	244	62.691	9.254	40.153	1.00	34.59	C
ATOM	9044	CZ	TYR	H	244	63.068	8.053	40.737	1.00	35.17	C
ATOM	9045	OH	TYR	H	244	64.233	7.992	41.452	1.00	34.83	O
ATOM	9046	N	HIS	H	245	57.485	10.436	37.025	1.00	33.44	N
ATOM	9047	CA	HIS	H	245	56.551	10.656	35.920	1.00	33.62	C
ATOM	9048	C	HIS	H	245	57.334	10.420	34.634	1.00	33.53	C
ATOM	9049	O	HIS	H	245	58.431	10.961	34.463	1.00	33.32	O
ATOM	9050	CB	HIS	H	245	56.005	12.087	35.939	1.00	33.59	C
ATOM	9051	N	LEU	H	246	56.783	9.605	33.741	1.00	33.25	N
ATOM	9052	CA	LEU	H	246	57.442	9.303	32.478	1.00	33.94	C
ATOM	9053	C	LEU	H	246	56.714	9.881	31.265	1.00	34.90	C
ATOM	9054	O	LEU	H	246	55.488	9.787	31.156	1.00	35.11	O
ATOM	9055	CB	LEU	H	246	57.581	7.786	32.301	1.00	33.54	C
ATOM	9056	CG	LEU	H	246	58.149	7.294	30.961	1.00	34.43	C
ATOM	9057	CD1	LEU	H	246	59.585	7.792	30.785	1.00	33.01	C
ATOM	9058	CD2	LEU	H	246	58.089	5.777	30.910	1.00	32.50	C
ATOM	9059	N	ASP	H	247	57.482	10.465	30.353	1.00	35.61	N
ATOM	9060	CA	ASP	H	247	56.944	11.033	29.127	1.00	37.11	C
ATOM	9061	C	ASP	H	247	57.832	10.602	27.964	1.00	37.48	C
ATOM	9062	O	ASP	H	247	59.058	10.634	28.066	1.00	37.54	O
ATOM	9063	CB	ASP	H	247	56.912	12.550	29.224	1.00	39.91	C
ATOM	9064	CG	ASP	H	247	55.542	13.115	28.940	1.00	42.18	C
ATOM	9065	OD1	ASP	H	247	55.139	14.058	29.651	1.00	44.55	O
ATOM	9066	OD2	ASP	H	247	54.875	12.622	28.004	1.00	43.69	O
ATOM	9067	N	VAL	H	248	57.219	10.188	26.861	1.00	37.77	N
ATOM	9068	CA	VAL	H	248	57.981	9.745	25.701	1.00	38.35	C
ATOM	9069	C	VAL	H	248	57.724	10.631	24.490	1.00	38.52	C
ATOM	9070	O	VAL	H	248	56.577	10.963	24.189	1.00	38.82	O
ATOM	9071	CB	VAL	H	248	57.628	8.281	25.332	1.00	39.24	C
ATOM	9072	CG1	VAL	H	248	58.433	7.835	24.126	1.00	38.91	C
ATOM	9073	CG2	VAL	H	248	57.909	7.366	26.516	1.00	39.39	C
ATOM	9074	N	VAL	H	249	58.797	11.010	23.797	1.00	38.34	N
ATOM	9075	CA	VAL	H	249	58.692	11.855	22.616	1.00	38.12	C
ATOM	9076	C	VAL	H	249	59.333	11.186	21.406	1.00	37.91	C
ATOM	9077	O	VAL	H	249	60.488	10.757	21.447	1.00	37.97	O
ATOM	9078	CB	VAL	H	249	59.370	13.225	22.835	1.00	39.72	C
ATOM	9079	CG1	VAL	H	249	59.227	14.079	21.589	1.00	40.27	C
ATOM	9080	CG2	VAL	H	249	58.741	13.936	24.022	1.00	39.98	C
ATOM	9081	N	GLU	H	250	58.574	11.092	20.323	1.00	37.93	N
ATOM	9082	CA	GLU	H	250	59.083	10.475	19.110	1.00	37.74	C
ATOM	9083	C	GLU	H	250	59.862	11.506	18.317	1.00	37.23	C
ATOM	9084	O	GLU	H	250	59.373	12.608	18.060	1.00	37.25	O
ATOM	9085	CB	GLU	H	250	57.934	9.925	18.259	1.00	39.21	C
ATOM	9086	CG	GLU	H	250	57.283	8.677	18.835	1.00	41.78	C
ATOM	9087	CD	GLU	H	250	55.943	8.362	18.197	1.00	43.45	C
ATOM	9088	OE1	GLU	H	250	55.029	9.217	18.283	1.00	43.91	O
ATOM	9089	OE2	GLU	H	250	55.803	7.261	17.621	1.00	44.35	O
ATOM	9090	N	ARG	H	251	61.084	11.157	17.943	1.00	36.00	N
ATOM	9091	CA	ARG	H	251	61.907	12.065	17.173	1.00	35.19	C
ATOM	9092	C	ARG	H	251	61.992	11.611	15.725	1.00	35.81	C
ATOM	9093	O	ARG	H	251	61.891	10.416	15.422	1.00	36.37	O
ATOM	9094	CB	ARG	H	251	63.329	12.170	17.760	1.00	33.44	C
ATOM	9095	CG	ARG	H	251	63.431	12.648	19.220	1.00	30.61	C
ATOM	9096	CD	ARG	H	251	62.608	13.895	19.515	1.00	29.36	C
ATOM	9097	NE	ARG	H	251	62.964	15.055	18.698	1.00	26.84	C
ATOM	9098	CZ	ARG	H	251	64.011	15.844	18.926	1.00	26.71	N
ATOM	9099	NH1	ARG	H	251	64.819	15.599	19.953	1.00	27.05	N
ATOM	9100	NH2	ARG	H	251	64.237	16.895	18.145	1.00	25.96	N
ATOM	9101	N	SER	H	252	62.181	12.595	14.848	1.00	36.27	N
ATOM	9102	CA	SER	H	252	62.311	12.341	13.425	1.00	36.60	C
ATOM	9103	C	SER	H	252	63.600	12.969	12.887	1.00	36.76	C
ATOM	9104	O	SER	H	252	63.639	14.146	12.563	1.00	36.31	O
ATOM	9105	CB	SER	H	252	61.112	12.915	12.673	1.00	36.51	C

Table 3

ATOM	9106	OG	SER	H	252	61.353	12.873	11.278	1.00	37.79	
ATOM	9107	N	PRO	H	253	64.669	12.170	12.764	1.00	37.26	O
ATOM	9108	CA	PRO	H	253	65.954	12.668	12.263	1.00	37.69	N
ATOM	9109	C	PRO	H	253	66.035	12.810	10.735	1.00	37.97	C
ATOM	9110	O	PRO	H	253	67.026	12.412	10.128	1.00	38.17	C
ATOM	9111	CB	PRO	H	253	66.931	11.618	12.781	1.00	37.61	O
ATOM	9112	CG	PRO	H	253	66.150	10.361	12.554	1.00	37.62	C
ATOM	9113	CD	PRO	H	253	64.749	10.726	13.053	1.00	37.15	C
ATOM	9114	N	HIS	H	254	65.010	13.375	10.107	1.00	37.79	C
ATOM	9115	CA	HIS	H	254	65.036	13.527	8.654	1.00	37.61	N
ATOM	9116	C	HIS	H	254	65.157	14.984	8.220	1.00	36.26	C
ATOM	9117	O	HIS	H	254	64.863	15.904	8.987	1.00	35.10	C
ATOM	9118	CB	HIS	H	254	63.768	12.945	8.013	1.00	39.78	O
ATOM	9119	CG	HIS	H	254	63.513	11.506	8.348	1.00	43.24	C
ATOM	9120	ND1	HIS	H	254	62.942	11.106	9.539	1.00	44.40	C
ATOM	9121	CD2	HIS	H	254	63.732	10.373	7.638	1.00	44.25	N
ATOM	9122	CE1	HIS	H	254	62.814	9.790	9.547	1.00	44.51	C
ATOM	9123	NE2	HIS	H	254	63.286	9.320	8.405	1.00	45.34	N
ATOM	9124	N	ARG	H	255	65.602	15.190	6.986	1.00	34.70	N
ATOM	9125	CA	ARG	H	255	65.697	16.543	6.450	1.00	34.66	N
ATOM	9126	C	ARG	H	255	64.234	16.947	6.199	1.00	32.87	C
ATOM	9127	O	ARG	H	255	63.348	16.094	6.220	1.00	31.68	O
ATOM	9128	CB	ARG	H	255	66.516	16.545	5.147	1.00	36.11	C
ATOM	9129	CG	ARG	H	255	65.923	15.740	3.992	1.00	39.33	C
ATOM	9130	CD	ARG	H	255	66.925	15.610	2.830	1.00	43.41	C
ATOM	9131	NE	ARG	H	255	66.255	15.594	1.526	1.00	47.20	N
ATOM	9132	CZ	ARG	H	255	65.493	14.602	1.065	1.00	48.68	N
ATOM	9133	NH1	ARG	H	255	65.293	13.509	1.790	1.00	49.44	C
ATOM	9134	NH2	ARG	H	255	64.897	14.719	-0.117	1.00	50.48	N
ATOM	9135	N	PRO	H	256	63.956	18.238	5.962	1.00	32.44	N
ATOM	9136	CA	PRO	H	256	62.562	18.655	5.727	1.00	31.90	N
ATOM	9137	C	PRO	H	256	61.879	17.921	4.567	1.00	31.51	C
ATOM	9138	O	PRO	H	256	62.496	17.656	3.541	1.00	31.23	O
ATOM	9139	CB	PRO	H	256	62.681	20.160	5.437	1.00	31.84	O
ATOM	9140	CG	PRO	H	256	63.959	20.555	6.105	1.00	32.24	C
ATOM	9141	CD	PRO	H	256	64.870	19.381	5.788	1.00	31.98	C
ATOM	9142	N	ILE	H	257	60.603	17.601	4.745	1.00	30.89	C
ATOM	9143	CA	ILE	H	257	59.809	16.922	3.727	1.00	31.20	N
ATOM	9144	C	ILE	H	257	58.727	17.884	3.195	1.00	30.90	C
ATOM	9145	O	ILE	H	257	58.043	18.540	3.977	1.00	30.53	O
ATOM	9146	CB	ILE	H	257	59.143	15.659	4.338	1.00	32.99	O
ATOM	9147	CG1	ILE	H	257	60.180	14.530	4.439	1.00	33.63	C
ATOM	9148	CG2	ILE	H	257	57.922	15.231	3.521	1.00	33.41	C
ATOM	9149	CD1	ILE	H	257	59.668	13.271	5.144	1.00	34.78	C
ATOM	9150	N	LEU	H	258	58.594	17.992	1.872	1.00	29.84	C
ATOM	9151	CA	LEU	H	258	57.578	18.870	1.293	1.00	29.28	N
ATOM	9152	C	LEU	H	258	56.468	18.062	0.652	1.00	29.66	C
ATOM	9153	O	LEU	H	258	56.679	16.938	0.197	1.00	29.28	O
ATOM	9154	CB	LEU	H	258	58.157	19.789	0.222	1.00	27.98	O
ATOM	9155	CG	LEU	H	258	59.413	20.606	0.512	1.00	29.09	C
ATOM	9156	CD1	LEU	H	258	59.627	21.596	-0.628	1.00	28.96	C
ATOM	9157	CD2	LEU	H	258	59.287	21.334	1.808	1.00	29.25	C
ATOM	9158	N	GLN	H	259	55.280	18.656	0.607	1.00	30.32	C
ATOM	9159	CA	GLN	H	259	54.109	18.021	0.003	1.00	30.43	N
ATOM	9160	C	GLN	H	259	54.277	17.965	-1.518	1.00	29.17	C
ATOM	9161	O	GLN	H	259	54.605	18.967	-2.147	1.00	28.86	O
ATOM	9162	CB	GLN	H	259	52.846	18.834	0.363	1.00	31.05	O
ATOM	9163	CG	GLN	H	259	51.519	18.315	-0.222	1.00	31.55	C
ATOM	9164	CD	GLN	H	259	50.304	19.180	0.162	1.00	32.40	C
ATOM	9165	OE1	GLN	H	259	50.084	19.480	1.336	1.00	31.59	C
ATOM	9166	NE2	GLN	H	259	49.510	19.569	-0.835	1.00	32.80	O
ATOM	9167	N	ALA	H	260	54.050	16.795	-2.102	1.00	28.89	N
ATOM	9168	CA	ALA	H	260	54.155	16.627	-3.549	1.00	29.45	N
ATOM	9169	C	ALA	H	260	53.130	17.505	-4.268	1.00	29.81	C
ATOM	9170	O	ALA	H	260	52.011	17.648	-3.801	1.00	29.56	C
ATOM	9171	CB	ALA	H	260	53.922	15.174	-3.905	1.00	28.68	O

Table 3

ATOM	9172	N	GLY	H	261	53.514	18.093	-5.397	1.00	30.77	N
ATOM	9173	CA	GLY	H	261	52.595	18.934	-6.148	1.00	31.72	C
ATOM	9174	C	GLY	H	261	52.630	20.414	-5.805	1.00	32.63	C
ATOM	9175	O	GLY	H	261	52.069	21.230	-6.535	1.00	32.86	O
ATOM	9176	N	LEU	H	262	53.279	20.769	-4.699	1.00	33.34	N
ATOM	9177	CA	LEU	H	262	53.364	22.169	-4.294	1.00	33.16	C
ATOM	9178	C	LEU	H	262	54.810	22.636	-4.198	1.00	33.78	C
ATOM	9179	O	LEU	H	262	55.663	21.937	-3.653	1.00	34.08	O
ATOM	9180	CB	LEU	H	262	52.654	22.372	-2.949	1.00	32.41	C
ATOM	9181	CG	LEU	H	262	51.125	22.199	-2.974	1.00	32.91	C
ATOM	9182	CD1	LEU	H	262	50.548	22.321	-1.561	1.00	31.68	C
ATOM	9183	CD2	LEU	H	262	50.515	23.261	-3.897	1.00	32.35	C
ATOM	9184	N	PRO	H	263	55.106	23.828	-4.730	1.00	33.86	N
ATOM	9185	CA	PRO	H	263	54.162	24.731	-5.398	1.00	34.62	C
ATOM	9186	C	PRO	H	263	53.692	24.210	-6.762	1.00	35.16	C
ATOM	9187	O	PRO	H	263	54.308	23.324	-7.353	1.00	35.17	O
ATOM	9188	CB	PRO	H	263	54.965	26.022	-5.514	1.00	34.70	C
ATOM	9189	CG	PRO	H	263	56.368	25.509	-5.724	1.00	34.09	C
ATOM	9190	CD	PRO	H	263	56.456	24.412	-4.689	1.00	33.37	C
ATOM	9191	N	ALA	H	264	52.593	24.767	-7.257	1.00	35.96	N
ATOM	9192	CA	ALA	H	264	52.052	24.354	-8.547	1.00	37.08	C
ATOM	9193	C	ALA	H	264	52.357	25.379	-9.637	1.00	37.85	C
ATOM	9194	O	ALA	H	264	52.493	26.572	-9.361	1.00	37.83	O
ATOM	9195	CB	ALA	H	264	50.559	24.159	-8.435	1.00	36.46	C
ATOM	9196	N	ASN	H	265	52.484	24.907	-10.872	1.00	38.58	N
ATOM	9197	CA	ASN	H	265	52.730	25.800	-11.995	1.00	39.78	C
ATOM	9198	C	ASN	H	265	51.564	26.790	-12.067	1.00	41.26	C
ATOM	9199	O	ASN	H	265	50.443	26.486	-11.653	1.00	40.55	O
ATOM	9200	CB	ASN	H	265	52.808	25.025	-13.317	1.00	38.66	C
ATOM	9201	CG	ASN	H	265	54.022	24.103	-13.399	1.00	38.73	C
ATOM	9202	OD1	ASN	H	265	55.143	24.494	-13.074	1.00	36.98	O
ATOM	9203	ND2	ASN	H	265	53.799	22.877	-13.856	1.00	38.25	N
ATOM	9204	N	ALA	H	266	51.836	27.975	-12.595	1.00	42.81	N
ATOM	9205	CA	ALA	H	266	50.817	29.005	-12.714	1.00	44.32	C
ATOM	9206	C	ALA	H	266	50.978	29.762	-14.022	1.00	45.43	C
ATOM	9207	O	ALA	H	266	52.088	29.900	-14.547	1.00	44.88	O
ATOM	9208	CB	ALA	H	266	50.921	29.970	-11.545	1.00	44.47	C
ATOM	9209	N	SER	H	267	49.861	30.253	-14.544	1.00	46.44	N
ATOM	9210	CA	SER	H	267	49.873	31.010	-15.784	1.00	47.36	C
ATOM	9211	C	SER	H	267	48.937	32.207	-15.656	1.00	47.83	C
ATOM	9212	O	SER	H	267	47.907	32.136	-14.976	1.00	47.58	O
ATOM	9213	CB	SER	H	267	49.441	30.110	-16.939	1.00	47.43	C
ATOM	9214	OG	SER	H	267	49.592	30.777	-18.179	1.00	49.15	O
ATOM	9215	N	THR	H	268	49.295	33.304	-16.313	1.00	47.79	N
ATOM	9216	CA	THR	H	268	48.477	34.512	-16.264	1.00	48.27	C
ATOM	9217	C	THR	H	268	48.836	35.504	-17.371	1.00	48.78	C
ATOM	9218	O	THR	H	268	49.878	35.383	-18.021	1.00	48.83	O
ATOM	9219	CB	THR	H	268	48.627	35.225	-14.899	1.00	47.98	C
ATOM	9220	OG1	THR	H	268	47.774	36.374	-14.866	1.00	48.48	O
ATOM	9221	CG2	THR	H	268	50.065	35.663	-14.677	1.00	47.38	C
ATOM	9222	N	VAL	H	269	47.961	36.481	-17.588	1.00	48.82	N
ATOM	9223	CA	VAL	H	269	48.196	37.507	-18.596	1.00	48.68	C
ATOM	9224	C	VAL	H	269	48.993	38.625	-17.919	1.00	48.43	C
ATOM	9225	O	VAL	H	269	48.927	38.781	-16.698	1.00	47.74	O
ATOM	9226	CB	VAL	H	269	46.858	38.082	-19.132	1.00	48.31	C
ATOM	9227	N	VAL	H	270	49.759	39.381	-18.699	1.00	48.71	N
ATOM	9228	CA	VAL	H	270	50.541	40.484	-18.142	1.00	49.74	C
ATOM	9229	C	VAL	H	270	49.587	41.324	-17.294	1.00	50.18	C
ATOM	9230	O	VAL	H	270	48.443	41.548	-17.689	1.00	50.16	O
ATOM	9231	CB	VAL	H	270	51.152	41.381	-19.264	1.00	49.84	C
ATOM	9232	CG1	VAL	H	270	51.888	42.557	-18.654	1.00	50.08	C
ATOM	9233	CG2	VAL	H	270	52.109	40.574	-20.128	1.00	49.80	C
ATOM	9234	N	GLY	H	271	50.044	41.764	-16.124	1.00	51.04	N
ATOM	9235	CA	GLY	H	271	49.195	42.573	-15.265	1.00	52.18	C
ATOM	9236	C	GLY	H	271	48.353	41.793	-14.266	1.00	53.14	C
ATOM	9237	O	GLY	H	271	47.632	42.386	-13.459	1.00	53.93	O

ATOM	9238	N	GLY	H	272	48.439	40.467	-14.305	1.00	53.00	N
ATOM	9239	CA	GLY	H	272	47.662	39.658	-13.379	1.00	53.12	C
ATOM	9240	C	GLY	H	272	48.330	39.423	-12.034	1.00	52.85	C
ATOM	9241	O	GLY	H	272	49.427	39.919	-11.770	1.00	52.78	O
ATOM	9242	N	ASP	H	273	47.653	38.665	-11.178	1.00	52.73	N
ATOM	9243	CA	ASP	H	273	48.156	38.333	-9.850	1.00	53.33	C
ATOM	9244	C	ASP	H	273	48.303	36.815	-9.706	1.00	52.50	C
ATOM	9245	O	ASP	H	273	47.527	36.050	-10.287	1.00	52.84	O
ATOM	9246	CB	ASP	H	273	47.191	38.870	-8.792	1.00	55.38	C
ATOM	9247	CG	ASP	H	273	47.200	40.384	-8.719	1.00	57.47	C
ATOM	9248	OD1	ASP	H	273	47.256	41.024	-9.793	1.00	58.51	O
ATOM	9249	OD2	ASP	H	273	47.144	40.934	-7.597	1.00	59.33	O
ATOM	9250	N	VAL	H	274	49.285	36.377	-8.923	1.00	50.85	N
ATOM	9251	CA	VAL	H	274	49.512	34.953	-8.746	1.00	48.93	C
ATOM	9252	C	VAL	H	274	50.120	34.592	-7.386	1.00	47.83	C
ATOM	9253	O	VAL	H	274	50.644	35.450	-6.674	1.00	47.74	O
ATOM	9254	CB	VAL	H	274	50.413	34.433	-9.893	1.00	49.11	C
ATOM	9255	CG1	VAL	H	274	51.810	35.040	-9.781	1.00	48.48	C
ATOM	9256	CG2	VAL	H	274	50.456	32.929	-9.879	1.00	49.90	C
ATOM	9257	N	GLU	H	275	50.029	33.318	-7.022	1.00	46.20	N
ATOM	9258	CA	GLU	H	275	50.580	32.847	-5.763	1.00	45.12	C
ATOM	9259	C	GLU	H	275	51.209	31.461	-5.912	1.00	43.67	C
ATOM	9260	O	GLU	H	275	50.865	30.702	-6.817	1.00	43.08	O
ATOM	9261	CB	GLU	H	275	49.491	32.791	-4.683	1.00	45.59	C
ATOM	9262	CG	GLU	H	275	48.336	31.821	-4.962	1.00	46.75	C
ATOM	9263	CD	GLU	H	275	47.542	31.474	-3.696	1.00	47.38	C
ATOM	9264	OE1	GLU	H	275	47.397	32.353	-2.829	1.00	48.10	O
ATOM	9265	OE2	GLU	H	275	47.056	30.328	-3.563	1.00	48.30	O
ATOM	9266	N	PHE	H	276	52.141	31.150	-5.019	1.00	41.69	N
ATOM	9267	CA	PHE	H	276	52.808	29.857	-5.003	1.00	39.52	C
ATOM	9268	C	PHE	H	276	52.755	29.386	-3.564	1.00	39.03	C
ATOM	9269	O	PHE	H	276	53.170	30.100	-2.648	1.00	38.10	O
ATOM	9270	CB	PHE	H	276	54.249	29.988	-5.481	1.00	38.65	C
ATOM	9271	CG	PHE	H	276	54.369	30.243	-6.951	1.00	38.48	C
ATOM	9272	CD1	PHE	H	276	54.031	29.256	-7.872	1.00	38.27	C
ATOM	9273	CD2	PHE	H	276	54.800	31.476	-7.421	1.00	38.58	C
ATOM	9274	CE1	PHE	H	276	54.121	29.495	-9.243	1.00	38.00	C
ATOM	9275	CE2	PHE	H	276	54.894	31.724	-8.790	1.00	38.36	C
ATOM	9276	CZ	PHE	H	276	54.554	30.732	-9.702	1.00	37.74	C
ATOM	9277	N	VAL	H	277	52.224	28.185	-3.368	1.00	37.80	N
ATOM	9278	CA	VAL	H	277	52.069	27.633	-2.037	1.00	37.39	C
ATOM	9279	C	VAL	H	277	53.056	26.509	-1.791	1.00	36.85	C
ATOM	9280	O	VAL	H	277	53.412	25.765	-2.700	1.00	37.31	O
ATOM	9281	CB	VAL	H	277	50.638	27.071	-1.835	1.00	37.65	C
ATOM	9282	CG1	VAL	H	277	50.423	26.681	-0.379	1.00	36.24	C
ATOM	9283	CG2	VAL	H	277	49.608	28.097	-2.299	1.00	38.51	C
ATOM	9284	N	CYS	H	278	53.483	26.386	-0.544	1.00	36.31	N
ATOM	9285	CA	CYS	H	278	54.421	25.348	-0.161	1.00	35.95	C
ATOM	9286	C	CYS	H	278	53.983	24.777	1.183	1.00	34.83	C
ATOM	9287	O	CYS	H	278	53.500	25.519	2.034	1.00	34.27	O
ATOM	9288	CB	CYS	H	278	55.818	25.945	-0.043	1.00	35.67	C
ATOM	9289	SG	CYS	H	278	57.046	24.702	0.310	1.00	39.57	S
ATOM	9290	N	LYS	H	279	54.155	23.471	1.370	1.00	33.39	N
ATOM	9291	CA	LYS	H	279	53.774	22.810	2.619	1.00	33.07	C
ATOM	9292	C	LYS	H	279	54.944	21.983	3.186	1.00	32.16	C
ATOM	9293	O	LYS	H	279	55.314	20.936	2.635	1.00	31.95	O
ATOM	9294	CB	LYS	H	279	52.564	21.911	2.367	1.00	34.19	C
ATOM	9295	CG	LYS	H	279	51.451	22.094	3.369	1.00	36.03	C
ATOM	9296	CD	LYS	H	279	51.912	21.792	4.767	1.00	36.39	C
ATOM	9297	CE	LYS	H	279	50.854	22.200	5.779	1.00	36.81	C
ATOM	9298	NZ	LYS	H	279	51.292	21.982	7.178	1.00	36.20	N
ATOM	9299	N	VAL	H	280	55.495	22.450	4.301	1.00	31.18	N
ATOM	9300	CA	VAL	H	280	56.648	21.825	4.946	1.00	31.20	C
ATOM	9301	C	VAL	H	280	56.417	21.072	6.264	1.00	31.10	C
ATOM	9302	O	VAL	H	280	55.619	21.489	7.094	1.00	31.08	O
ATOM	9303	CB	VAL	H	280	57.727	22.903	5.221	1.00	30.51	C

Table 3

ATOM	9304	CG1	VAL	H	280	58.967	22.269	5.838	1.00	30.03	C
ATOM	9305	CG2	VAL	H	280	58.068	23.632	3.926	1.00	30.17	C
ATOM	9306	N	TYR	H	281	57.150	19.971	6.442	1.00	31.13	N
ATOM	9307	CA	TYR	H	281	57.110	19.165	7.666	1.00	31.35	C
ATOM	9308	C	TYR	H	281	58.557	18.911	8.126	1.00	30.45	C
ATOM	9309	O	TYR	H	281	59.417	18.558	7.317	1.00	29.54	O
ATOM	9310	CB	TYR	H	281	56.426	17.805	7.433	1.00	34.05	C
ATOM	9311	CG	TYR	H	281	54.983	17.892	6.985	1.00	35.89	C
ATOM	9312	CD1	TYR	H	281	54.661	17.969	5.632	1.00	36.41	C
ATOM	9313	CD2	TYR	H	281	53.945	17.962	7.919	1.00	36.66	C
ATOM	9314	CE1	TYR	H	281	53.347	18.123	5.208	1.00	37.37	C
ATOM	9315	CE2	TYR	H	281	52.615	18.118	7.509	1.00	37.92	C
ATOM	9316	CZ	TYR	H	281	52.327	18.201	6.147	1.00	38.00	C
ATOM	9317	OH	TYR	H	281	51.033	18.403	5.726	1.00	38.37	O
ATOM	9318	N	SER	H	282	58.821	19.090	9.417	1.00	29.51	N
ATOM	9319	CA	SER	H	282	60.159	18.875	9.962	1.00	29.67	C
ATOM	9320	C	SER	H	282	60.142	18.858	11.497	1.00	29.90	C
ATOM	9321	O	SER	H	282	59.332	19.538	12.126	1.00	30.45	O
ATOM	9322	CB	SER	H	282	61.110	19.977	9.456	1.00	29.57	C
ATOM	9323	OG	SER	H	282	62.438	19.767	9.908	1.00	29.13	O
ATOM	9324	N	ASP	H	283	61.024	18.065	12.091	1.00	29.63	N
ATOM	9325	CA	ASP	H	283	61.143	17.975	13.549	1.00	30.15	C
ATOM	9326	C	ASP	H	283	62.118	19.096	13.941	1.00	30.23	C
ATOM	9327	O	ASP	H	283	61.775	20.029	14.665	1.00	31.19	O
ATOM	9328	CB	ASP	H	283	61.704	16.594	13.929	1.00	31.41	C
ATOM	9329	CG	ASP	H	283	61.957	16.438	15.422	1.00	32.47	C
ATOM	9330	OD1	ASP	H	283	62.102	15.275	15.869	1.00	31.49	O
ATOM	9331	OD2	ASP	H	283	62.022	17.460	16.145	1.00	32.81	O
ATOM	9332	N	ALA	H	284	63.342	18.985	13.451	1.00	29.34	N
ATOM	9333	CA	ALA	H	284	64.356	19.997	13.683	1.00	29.14	C
ATOM	9334	C	ALA	H	284	63.812	21.267	13.005	1.00	28.51	C
ATOM	9335	O	ALA	H	284	63.304	21.194	11.897	1.00	28.63	O
ATOM	9336	CB	ALA	H	284	65.669	19.559	13.014	1.00	27.52	C
ATOM	9337	N	GLN	H	285	63.917	22.414	13.663	1.00	28.67	N
ATOM	9338	CA	GLN	H	285	63.416	23.671	13.111	1.00	28.52	C
ATOM	9339	C	GLN	H	285	63.883	23.876	11.662	1.00	28.22	C
ATOM	9340	O	GLN	H	285	65.083	23.898	11.391	1.00	28.44	O
ATOM	9341	CB	GLN	H	285	63.912	24.822	13.984	1.00	29.12	C
ATOM	9342	CG	GLN	H	285	62.896	25.925	14.200	1.00	28.42	C
ATOM	9343	CD	GLN	H	285	61.558	25.395	14.677	1.00	28.46	C
ATOM	9344	OE1	GLN	H	285	61.491	24.469	15.496	1.00	28.03	O
ATOM	9345	NE2	GLN	H	285	60.482	25.991	14.177	1.00	26.08	N
ATOM	9346	N	PRO	H	286	62.946	24.020	10.712	1.00	27.62	N
ATOM	9347	CA	PRO	H	286	63.296	24.219	9.299	1.00	27.16	C
ATOM	9348	C	PRO	H	286	63.381	25.703	8.907	1.00	28.07	C
ATOM	9349	O	PRO	H	286	62.701	26.545	9.496	1.00	28.41	O
ATOM	9350	CB	PRO	H	286	62.155	23.533	8.577	1.00	27.57	C
ATOM	9351	CG	PRO	H	286	60.981	23.969	9.420	1.00	27.78	C
ATOM	9352	CD	PRO	H	286	61.502	23.752	10.851	1.00	28.09	C
ATOM	9353	N	HIS	H	287	64.212	26.012	7.915	1.00	27.90	N
ATOM	9354	CA	HIS	H	287	64.355	27.382	7.425	1.00	28.46	C
ATOM	9355	C	HIS	H	287	63.843	27.395	5.989	1.00	28.05	C
ATOM	9356	O	HIS	H	287	64.366	26.710	5.122	1.00	27.07	O
ATOM	9357	CB	HIS	H	287	65.817	27.854	7.471	1.00	27.74	C
ATOM	9358	CG	HIS	H	287	65.993	29.265	7.010	1.00	29.87	C
ATOM	9359	ND1	HIS	H	287	66.529	29.587	5.782	1.00	31.80	N
ATOM	9360	CD2	HIS	H	287	65.626	30.441	7.579	1.00	30.30	C
ATOM	9361	CE1	HIS	H	287	66.479	30.898	5.611	1.00	31.47	C
ATOM	9362	NE2	HIS	H	287	65.934	31.440	6.687	1.00	30.23	N
ATOM	9363	N	ILE	H	288	62.806	28.185	5.753	1.00	29.18	N
ATOM	9364	CA	ILE	H	288	62.169	28.263	4.448	1.00	29.25	C
ATOM	9365	C	ILE	H	288	62.433	29.573	3.689	1.00	30.96	C
ATOM	9366	O	ILE	H	288	62.399	30.664	4.266	1.00	31.51	O
ATOM	9367	CB	ILE	H	288	60.642	28.082	4.621	1.00	28.49	C
ATOM	9368	CG1	ILE	H	288	60.373	26.832	5.481	1.00	29.99	C
ATOM	9369	CG2	ILE	H	288	59.969	27.980	3.269	1.00	28.50	C

Table 3

ATOM	9370	CD1	ILE	H	288	58.884	26.559	5.795	1.00	28.45	C
ATOM	9371	N	GLN	H	289	62.696	29.460	2.390	1.00	31.82	N
ATOM	9372	CA	GLN	H	289	62.923	30.631	1.552	1.00	32.69	C
ATOM	9373	C	GLN	H	289	62.388	30.368	0.156	1.00	32.57	C
ATOM	9374	O	GLN	H	289	62.260	29.212	-0.254	1.00	32.41	O
ATOM	9375	CB	GLN	H	289	64.414	30.963	1.458	1.00	33.25	C
ATOM	9376	CG	GLN	H	289	65.269	29.878	0.859	1.00	33.75	C
ATOM	9377	CD	GLN	H	289	66.744	30.258	0.825	1.00	35.50	C
ATOM	9378	OE1	GLN	H	289	67.139	31.179	0.112	1.00	36.06	O
ATOM	9379	NE2	GLN	H	289	67.564	29.547	1.602	1.00	34.39	N
ATOM	9380	N	TRP	H	290	62.060	31.440	-0.559	1.00	31.53	N
ATOM	9381	CA	TRP	H	290	61.570	31.333	-1.922	1.00	32.53	C
ATOM	9382	C	TRP	H	290	62.642	31.893	-2.848	1.00	33.98	C
ATOM	9383	O	TRP	H	290	63.164	32.985	-2.617	1.00	33.48	O
ATOM	9384	CB	TRP	H	290	60.265	32.108	-2.102	1.00	30.04	C
ATOM	9385	CG	TRP	H	290	59.055	31.426	-1.495	1.00	28.03	C
ATOM	9386	CD1	TRP	H	290	58.547	31.625	-0.250	1.00	27.08	C
ATOM	9387	CD2	TRP	H	290	58.199	30.459	-2.128	1.00	26.37	C
ATOM	9388	NE1	TRP	H	290	57.422	30.852	-0.064	1.00	26.17	N
ATOM	9389	CE2	TRP	H	290	57.186	30.126	-1.201	1.00	26.79	C
ATOM	9390	CE3	TRP	H	290	58.186	29.850	-3.390	1.00	25.93	C
ATOM	9391	CZ2	TRP	H	290	56.159	29.205	-1.498	1.00	25.61	C
ATOM	9392	CZ3	TRP	H	290	57.170	28.937	-3.685	1.00	26.82	C
ATOM	9393	CH2	TRP	H	290	56.166	28.627	-2.737	1.00	25.68	C
ATOM	9394	N	ILE	H	291	62.955	31.138	-3.896	1.00	35.66	N
ATOM	9395	CA	ILE	H	291	63.989	31.515	-4.844	1.00	39.09	C
ATOM	9396	C	ILE	H	291	63.525	31.573	-6.304	1.00	40.97	C
ATOM	9397	O	ILE	H	291	62.742	30.736	-6.759	1.00	41.16	O
ATOM	9398	CB	ILE	H	291	65.171	30.518	-4.771	1.00	38.90	C
ATOM	9399	CG1	ILE	H	291	65.583	30.296	-3.311	1.00	40.33	C
ATOM	9400	CG2	ILE	H	291	66.337	31.044	-5.587	1.00	39.19	C
ATOM	9401	CD1	ILE	H	291	66.613	29.197	-3.115	1.00	40.21	C
ATOM	9402	N	LYS	H	292	64.030	32.561	-7.034	1.00	42.59	N
ATOM	9403	CA	LYS	H	292	63.716	32.732	-8.449	1.00	44.15	C
ATOM	9404	C	LYS	H	292	65.004	32.417	-9.215	1.00	44.86	C
ATOM	9405	O	LYS	H	292	66.073	32.920	-8.859	1.00	44.43	O
ATOM	9406	CB	LYS	H	292	63.294	34.179	-8.708	1.00	44.79	C
ATOM	9407	CG	LYS	H	292	62.216	34.374	-9.782	1.00	46.10	C
ATOM	9408	CD	LYS	H	292	62.752	34.216	-11.188	1.00	46.60	C
ATOM	9409	CE	LYS	H	292	61.676	34.580	-12.217	1.00	46.77	C
ATOM	9410	NZ	LYS	H	292	62.245	34.792	-13.575	1.00	46.44	N
ATOM	9411	N	HIS	H	293	64.916	31.571	-10.239	1.00	46.05	N
ATOM	9412	CA	HIS	H	293	66.097	31.225	-11.031	1.00	47.50	C
ATOM	9413	C	HIS	H	293	66.315	32.299	-12.092	1.00	48.23	C
ATOM	9414	O	HIS	H	293	65.552	32.398	-13.044	1.00	49.00	O
ATOM	9415	CB	HIS	H	293	65.919	29.857	-11.699	1.00	47.52	C
ATOM	9416	N	VAL	H	294	67.349	33.114	-11.925	1.00	49.24	N
ATOM	9417	CA	VAL	H	294	67.626	34.182	-12.886	1.00	49.93	C
ATOM	9418	C	VAL	H	294	68.978	33.999	-13.575	1.00	50.69	C
ATOM	9419	O	VAL	H	294	69.468	34.901	-14.265	1.00	52.03	O
ATOM	9420	CB	VAL	H	294	67.604	35.562	-12.196	1.00	49.74	C
ATOM	9421	CG1	VAL	H	294	66.247	35.806	-11.558	1.00	49.61	C
ATOM	9422	CG2	VAL	H	294	68.700	35.631	-11.142	1.00	50.11	C
ATOM	9423	N	PRO	H	307	74.376	28.181	-11.083	1.00	60.18	N
ATOM	9424	CA	PRO	H	307	73.015	28.699	-11.266	1.00	59.57	C
ATOM	9425	C	PRO	H	307	72.797	30.049	-10.589	1.00	58.87	C
ATOM	9426	O	PRO	H	307	72.977	30.187	-9.378	1.00	58.70	O
ATOM	9427	CB	PRO	H	307	72.141	27.600	-10.661	1.00	59.86	C
ATOM	9428	CG	PRO	H	307	73.005	27.068	-9.555	1.00	60.24	C
ATOM	9429	CD	PRO	H	307	74.370	26.983	-10.222	1.00	60.69	C
ATOM	9430	N	TYR	H	308	72.419	31.045	-11.387	1.00	57.90	N
ATOM	9431	CA	TYR	H	308	72.163	32.385	-10.878	1.00	56.75	C
ATOM	9432	C	TYR	H	308	70.820	32.403	-10.157	1.00	56.02	C
ATOM	9433	O	TYR	H	308	69.766	32.244	-10.780	1.00	55.98	O
ATOM	9434	CB	TYR	H	308	72.148	33.398	-12.025	1.00	57.22	C
ATOM	9435	N	LEU	H	309	70.865	32.605	-8.843	1.00	54.51	N

Table 3

ATOM	9436	CA	LEU	H	309	69.653	32.631	-8.034	1.00	52.98	C
ATOM	9437	C	LEU	H	309	69.388	33.991	-7.398	1.00	51.39	C
ATOM	9438	O	LEU	H	309	70.307	34.780	-7.194	1.00	52.19	O
ATOM	9439	CB	LEU	H	309	69.738	31.569	-6.936	1.00	53.03	C
ATOM	9440	CG	LEU	H	309	69.988	30.127	-7.391	1.00	53.20	C
ATOM	9441	CD1	LEU	H	309	70.038	29.221	-6.170	1.00	53.52	C
ATOM	9442	CD2	LEU	H	309	68.886	29.679	-8.349	1.00	53.46	C
ATOM	9443	N	LYS	H	310	68.122	34.256	-7.095	1.00	48.98	N
ATOM	9444	CA	LYS	H	310	67.719	35.502	-6.453	1.00	46.80	C
ATOM	9445	C	LYS	H	310	66.721	35.182	-5.341	1.00	45.04	C
ATOM	9446	O	LYS	H	310	65.668	34.594	-5.592	1.00	43.73	O
ATOM	9447	CB	LYS	H	310	67.071	36.446	-7.470	1.00	47.70	C
ATOM	9448	N	VAL	H	311	67.060	35.568	-4.114	1.00	43.31	N
ATOM	9449	CA	VAL	H	311	66.203	35.317	-2.961	1.00	41.81	C
ATOM	9450	C	VAL	H	311	65.068	36.326	-2.870	1.00	41.18	C
ATOM	9451	O	VAL	H	311	65.292	37.513	-2.631	1.00	41.93	O
ATOM	9452	CB	VAL	H	311	67.014	35.361	-1.641	1.00	41.66	C
ATOM	9453	CG1	VAL	H	311	66.072	35.199	-0.438	1.00	41.45	C
ATOM	9454	CG2	VAL	H	311	68.075	34.265	-1.649	1.00	40.22	C
ATOM	9455	N	LEU	H	312	63.846	35.846	-3.047	1.00	39.47	N
ATOM	9456	CA	LEU	H	312	62.678	36.712	-2.997	1.00	39.06	C
ATOM	9457	C	LEU	H	312	62.191	36.958	-1.580	1.00	38.82	C
ATOM	9458	O	LEU	H	312	61.750	38.059	-1.246	1.00	39.00	O
ATOM	9459	CB	LEU	H	312	61.530	36.093	-3.795	1.00	38.04	C
ATOM	9460	CG	LEU	H	312	61.868	35.589	-5.194	1.00	38.09	C
ATOM	9461	CD1	LEU	H	312	60.606	35.046	-5.840	1.00	37.34	C
ATOM	9462	CD2	LEU	H	312	62.478	36.724	-6.030	1.00	38.16	C
ATOM	9463	N	LYS	H	313	62.294	35.935	-0.741	1.00	38.00	N
ATOM	9464	CA	LYS	H	313	61.788	36.022	0.615	1.00	36.74	C
ATOM	9465	C	LYS	H	313	62.424	34.902	1.447	1.00	35.97	C
ATOM	9466	O	LYS	H	313	62.619	33.790	0.949	1.00	35.18	O
ATOM	9467	CB	LYS	H	313	60.271	35.853	0.496	1.00	36.72	C
ATOM	9468	CG	LYS	H	313	59.418	35.909	1.718	1.00	37.50	C
ATOM	9469	CD	LYS	H	313	57.995	35.679	1.221	1.00	37.93	C
ATOM	9470	CE	LYS	H	313	56.951	35.675	2.312	1.00	38.60	C
ATOM	9471	NZ	LYS	H	313	55.667	35.265	1.685	1.00	37.65	N
ATOM	9472	N	ALA	H	314	62.751	35.196	2.703	1.00	34.47	N
ATOM	9473	CA	ALA	H	314	63.368	34.208	3.583	1.00	33.45	C
ATOM	9474	C	ALA	H	314	62.896	34.356	5.021	1.00	32.58	C
ATOM	9475	O	ALA	H	314	62.744	35.470	5.532	1.00	31.18	O
ATOM	9476	CB	ALA	H	314	64.905	34.312	3.519	1.00	33.76	C
ATOM	9477	N	ALA	H	315	62.679	33.213	5.670	1.00	31.78	N
ATOM	9478	CA	ALA	H	315	62.209	33.164	7.051	1.00	31.19	C
ATOM	9479	C	ALA	H	315	63.200	33.782	8.041	1.00	31.17	C
ATOM	9480	O	ALA	H	315	64.415	33.771	7.825	1.00	29.04	O
ATOM	9481	CB	ALA	H	315	61.929	31.722	7.444	1.00	31.28	C
ATOM	9482	N	GLY	H	316	62.659	34.308	9.133	1.00	31.15	N
ATOM	9483	CA	GLY	H	316	63.481	34.920	10.158	1.00	33.15	C
ATOM	9484	C	GLY	H	316	62.631	35.677	11.161	1.00	35.11	C
ATOM	9485	O	GLY	H	316	61.394	35.625	11.113	1.00	34.36	O
ATOM	9486	N	VAL	H	317	63.292	36.379	12.075	1.00	36.85	N
ATOM	9487	CA	VAL	H	317	62.585	37.151	13.091	1.00	39.38	C
ATOM	9488	C	VAL	H	317	61.681	38.230	12.482	1.00	40.23	C
ATOM	9489	O	VAL	H	317	60.631	38.547	13.039	1.00	40.13	O
ATOM	9490	CB	VAL	H	317	63.575	37.798	14.081	1.00	39.91	C
ATOM	9491	CG1	VAL	H	317	62.938	39.022	14.731	1.00	41.41	C
ATOM	9492	CG2	VAL	H	317	63.956	36.784	15.158	1.00	39.67	C
ATOM	9493	N	ASN	H	318	62.081	38.777	11.335	1.00	41.18	N
ATOM	9494	CA	ASN	H	318	61.285	39.805	10.676	1.00	42.85	C
ATOM	9495	C	ASN	H	318	60.330	39.246	9.621	1.00	43.52	C
ATOM	9496	O	ASN	H	318	59.555	39.994	9.038	1.00	45.16	O
ATOM	9497	CB	ASN	H	318	62.203	40.852	10.031	1.00	43.45	C
ATOM	9498	N	THR	H	319	60.393	37.940	9.372	1.00	43.55	N
ATOM	9499	CA	THR	H	319	59.522	37.289	8.390	1.00	42.98	C
ATOM	9500	C	THR	H	319	59.194	35.906	8.959	1.00	42.78	C
ATOM	9501	O	THR	H	319	59.766	34.895	8.550	1.00	42.38	O

Table 3

ATOM	9502	CB	THR	H	319	60.234	37.120	7.028	1.00	43.83	C
ATOM	9503	OG1	THR	H	319	60.967	38.310	6.712	1.00	44.68	O
ATOM	9504	CG2	THR	H	319	59.213	36.859	5.921	1.00	42.87	C
ATOM	9505	N	THR	H	320	58.271	35.892	9.914	1.00	42.01	N
ATOM	9506	CA	THR	H	320	57.839	34.694	10.628	1.00	42.17	C
ATOM	9507	C	THR	H	320	57.305	33.541	9.773	1.00	40.98	C
ATOM	9508	O	THR	H	320	56.901	33.738	8.627	1.00	40.68	O
ATOM	9509	CB	THR	H	320	56.792	35.101	11.700	1.00	43.14	C
ATOM	9510	OG1	THR	H	320	57.448	35.887	12.702	1.00	45.22	O
ATOM	9511	CG2	THR	H	320	56.151	33.889	12.360	1.00	45.06	C
ATOM	9512	N	ASP	H	321	57.318	32.333	10.342	1.00	39.70	N
ATOM	9513	CA	ASP	H	321	56.835	31.149	9.639	1.00	38.81	C
ATOM	9514	C	ASP	H	321	55.326	31.172	9.375	1.00	38.85	C
ATOM	9515	O	ASP	H	321	54.837	30.461	8.507	1.00	38.89	O
ATOM	9516	CB	ASP	H	321	57.197	29.874	10.411	1.00	37.34	C
ATOM	9517	CG	ASP	H	321	58.693	29.589	10.407	1.00	36.21	C
ATOM	9518	OD1	ASP	H	321	59.383	30.100	9.500	1.00	35.02	O
ATOM	9519	OD2	ASP	H	321	59.166	28.843	11.296	1.00	33.81	O
ATOM	9520	N	LYS	H	322	54.590	31.993	10.120	1.00	38.99	N
ATOM	9521	CA	LYS	H	322	53.143	32.083	9.953	1.00	38.60	C
ATOM	9522	C	LYS	H	322	52.720	32.329	8.499	1.00	37.91	C
ATOM	9523	O	LYS	H	322	51.747	31.742	8.015	1.00	36.72	O
ATOM	9524	CB	LYS	H	322	52.580	33.199	10.846	1.00	38.53	C
ATOM	9525	N	GLU	H	323	53.458	33.182	7.797	1.00	37.47	N
ATOM	9526	CA	GLU	H	323	53.112	33.495	6.419	1.00	37.78	C
ATOM	9527	C	GLU	H	323	54.225	33.234	5.394	1.00	37.88	C
ATOM	9528	O	GLU	H	323	54.135	33.667	4.244	1.00	37.65	O
ATOM	9529	CB	GLU	H	323	52.645	34.953	6.336	1.00	37.67	C
ATOM	9530	N	ILE	H	324	55.257	32.502	5.801	1.00	37.50	N
ATOM	9531	CA	ILE	H	324	56.370	32.225	4.904	1.00	37.08	C
ATOM	9532	C	ILE	H	324	56.077	31.163	3.821	1.00	36.29	C
ATOM	9533	O	ILE	H	324	56.713	31.166	2.773	1.00	35.74	O
ATOM	9534	CB	ILE	H	324	57.631	31.849	5.737	1.00	37.12	C
ATOM	9535	CG1	ILE	H	324	58.866	32.552	5.159	1.00	38.18	C
ATOM	9536	CG2	ILE	H	324	57.798	30.336	5.816	1.00	36.42	C
ATOM	9537	CD1	ILE	H	324	59.214	32.162	3.758	1.00	38.53	C
ATOM	9538	N	GLU	H	325	55.097	30.291	4.048	1.00	35.93	N
ATOM	9539	CA	GLU	H	325	54.785	29.252	3.069	1.00	36.88	C
ATOM	9540	C	GLU	H	325	53.963	29.653	1.841	1.00	37.34	C
ATOM	9541	O	GLU	H	325	53.660	28.815	0.996	1.00	36.84	O
ATOM	9542	CB	GLU	H	325	54.137	28.064	3.769	1.00	37.33	C
ATOM	9543	CG	GLU	H	325	55.112	27.279	4.649	1.00	38.42	C
ATOM	9544	CD	GLU	H	325	54.409	26.228	5.498	1.00	39.29	C
ATOM	9545	OE1	GLU	H	325	53.518	26.613	6.291	1.00	39.31	O
ATOM	9546	OE2	GLU	H	325	54.742	25.029	5.368	1.00	37.77	O
ATOM	9547	N	VAL	H	326	53.603	30.925	1.728	1.00	37.78	N
ATOM	9548	CA	VAL	H	326	52.862	31.373	0.556	1.00	39.52	C
ATOM	9549	C	VAL	H	326	53.555	32.610	-0.020	1.00	39.99	C
ATOM	9550	O	VAL	H	326	53.880	33.536	0.714	1.00	40.78	O
ATOM	9551	CB	VAL	H	326	51.375	31.676	0.903	1.00	40.06	C
ATOM	9552	CG1	VAL	H	326	51.289	32.735	2.006	1.00	41.95	C
ATOM	9553	CG2	VAL	H	326	50.638	32.143	-0.342	1.00	39.31	C
ATOM	9554	N	LEU	H	327	53.817	32.597	-1.326	1.00	40.27	N
ATOM	9555	CA	LEU	H	327	54.478	33.712	-2.006	1.00	40.64	C
ATOM	9556	C	LEU	H	327	53.508	34.372	-2.970	1.00	42.00	C
ATOM	9557	O	LEU	H	327	52.989	33.720	-3.882	1.00	41.64	O
ATOM	9558	CB	LEU	H	327	55.700	33.238	-2.803	1.00	38.86	C
ATOM	9559	CG	LEU	H	327	56.432	34.300	-3.636	1.00	37.79	C
ATOM	9560	CD1	LEU	H	327	57.253	35.215	-2.718	1.00	36.93	C
ATOM	9561	CD2	LEU	H	327	57.346	33.624	-4.645	1.00	36.04	C
ATOM	9562	N	TYR	H	328	53.277	35.666	-2.769	1.00	42.93	N
ATOM	9563	CA	TYR	H	328	52.371	36.427	-3.624	1.00	44.15	C
ATOM	9564	C	TYR	H	328	53.129	37.341	-4.591	1.00	45.79	C
ATOM	9565	O	TYR	H	328	54.136	37.956	-4.226	1.00	45.90	O
ATOM	9566	CB	TYR	H	328	51.400	37.278	-2.770	1.00	42.30	C
ATOM	9567	CG	TYR	H	328	50.434	36.476	-1.911	1.00	41.07	C

Table 3

ATOM	9568	CD1	TYR	H	328	50.642	36.331	-0.532	1.00	40.43	C
ATOM	9569	CD2	TYR	H	328	49.340	35.820	-2.484	1.00	40.34	C
ATOM	9570	CE1	TYR	H	328	49.784	35.548	0.254	1.00	39.51	C
ATOM	9571	CE2	TYR	H	328	48.483	35.031	-1.714	1.00	39.61	C
ATOM	9572	CZ	TYR	H	328	48.712	34.897	-0.349	1.00	40.54	C
ATOM	9573	OH	TYR	H	328	47.891	34.077	0.398	1.00	41.41	O
ATOM	9574	N	ILE	H	329	52.649	37.407	-5.832	1.00	47.90	N
ATOM	9575	CA	ILE	H	329	53.243	38.277	-6.849	1.00	49.69	C
ATOM	9576	C	ILE	H	329	52.121	38.962	-7.620	1.00	51.11	C
ATOM	9577	O	ILE	H	329	51.392	38.317	-8.372	1.00	50.96	O
ATOM	9578	CB	ILE	H	329	54.107	37.512	-7.844	1.00	49.40	C
ATOM	9579	CG1	ILE	H	329	55.273	36.854	-7.113	1.00	49.02	C
ATOM	9580	CG2	ILE	H	329	54.619	38.469	-8.911	1.00	48.86	C
ATOM	9581	CD1	ILE	H	329	56.103	35.964	-7.994	1.00	49.85	C
ATOM	9582	N	ARG	H	330	51.987	40.270	-7.425	1.00	52.65	N
ATOM	9583	CA	ARG	H	330	50.937	41.026	-8.092	1.00	54.33	C
ATOM	9584	C	ARG	H	330	51.419	41.888	-9.254	1.00	54.53	C
ATOM	9585	O	ARG	H	330	52.595	42.253	-9.340	1.00	53.97	O
ATOM	9586	CB	ARG	H	330	50.177	41.898	-7.084	1.00	56.10	C
ATOM	9587	CG	ARG	H	330	49.459	41.108	-5.994	1.00	58.20	C
ATOM	9588	CD	ARG	H	330	48.308	41.898	-5.396	1.00	59.84	C
ATOM	9589	NE	ARG	H	330	47.443	41.061	-4.564	1.00	62.08	N
ATOM	9590	CZ	ARG	H	330	46.223	41.403	-4.156	1.00	62.89	C
ATOM	9591	NH1	ARG	H	330	45.706	42.574	-4.498	1.00	63.06	N
ATOM	9592	NH2	ARG	H	330	45.515	40.569	-3.406	1.00	63.25	N
ATOM	9593	N	ASN	H	331	50.489	42.193	-10.158	1.00	55.19	N
ATOM	9594	CA	ASN	H	331	50.777	43.016	-11.326	1.00	55.80	C
ATOM	9595	C	ASN	H	331	52.050	42.499	-12.001	1.00	56.05	C
ATOM	9596	O	ASN	H	331	53.023	43.237	-12.177	1.00	55.89	O
ATOM	9597	CB	ASN	H	331	50.937	44.480	-10.877	1.00	56.20	C
ATOM	9598	CG	ASN	H	331	50.917	45.455	-12.038	1.00	56.60	C
ATOM	9599	OD1	ASN	H	331	50.701	45.075	-13.187	1.00	57.12	O
ATOM	9600	ND2	ASN	H	331	51.137	46.730	-11.737	1.00	55.92	N
ATOM	9601	N	VAL	H	332	52.029	41.224	-12.387	1.00	56.09	N
ATOM	9602	CA	VAL	H	332	53.188	40.593	-13.014	1.00	55.89	C
ATOM	9603	C	VAL	H	332	53.578	41.172	-14.367	1.00	55.80	C
ATOM	9604	O	VAL	H	332	52.735	41.652	-15.127	1.00	55.56	O
ATOM	9605	CB	VAL	H	332	52.988	39.067	-13.197	1.00	55.93	C
ATOM	9606	CG1	VAL	H	332	52.608	38.419	-11.872	1.00	56.01	C
ATOM	9607	CG2	VAL	H	332	51.930	38.803	-14.240	1.00	56.49	C
ATOM	9608	N	THR	H	333	54.876	41.117	-14.648	1.00	55.86	N
ATOM	9609	CA	THR	H	333	55.437	41.591	-15.905	1.00	55.84	C
ATOM	9610	C	THR	H	333	55.973	40.347	-16.606	1.00	55.98	C
ATOM	9611	O	THR	H	333	55.989	39.265	-16.015	1.00	55.70	O
ATOM	9612	CB	THR	H	333	56.610	42.576	-15.667	1.00	56.00	C
ATOM	9613	OG1	THR	H	333	57.707	41.887	-15.053	1.00	55.64	O
ATOM	9614	CG2	THR	H	333	56.171	43.716	-14.757	1.00	56.17	C
ATOM	9615	N	PHE	H	334	56.402	40.489	-17.856	1.00	55.64	N
ATOM	9616	CA	PHE	H	334	56.943	39.354	-18.595	1.00	55.14	C
ATOM	9617	C	PHE	H	334	58.255	38.924	-17.935	1.00	54.70	C
ATOM	9618	O	PHE	H	334	58.697	37.778	-18.072	1.00	54.50	O
ATOM	9619	CB	PHE	H	334	57.188	39.744	-20.059	1.00	54.92	C
ATOM	9620	N	GLU	H	335	58.867	39.853	-17.209	1.00	53.71	N
ATOM	9621	CA	GLU	H	335	60.128	39.585	-16.529	1.00	53.18	C
ATOM	9622	C	GLU	H	335	59.956	38.597	-15.372	1.00	52.08	C
ATOM	9623	O	GLU	H	335	60.894	37.889	-15.010	1.00	51.65	O
ATOM	9624	CB	GLU	H	335	60.734	40.896	-16.009	1.00	52.71	C
ATOM	9625	N	ASP	H	336	58.753	38.550	-14.802	1.00	50.89	N
ATOM	9626	CA	ASP	H	336	58.477	37.653	-13.685	1.00	49.91	C
ATOM	9627	C	ASP	H	336	58.419	36.179	-14.084	1.00	49.25	C
ATOM	9628	O	ASP	H	336	58.576	35.301	-13.238	1.00	48.81	O
ATOM	9629	CB	ASP	H	336	57.177	38.060	-12.991	1.00	49.37	C
ATOM	9630	CG	ASP	H	336	57.285	39.410	-12.313	1.00	49.80	C
ATOM	9631	OD1	ASP	H	336	58.295	39.634	-11.609	1.00	50.47	O
ATOM	9632	OD2	ASP	H	336	56.364	40.243	-12.470	1.00	49.20	O
ATOM	9633	N	ALA	H	337	58.197	35.913	-15.369	1.00	48.17	N

Table 3

ATOM	9634	CA	ALA	H	337	58.143	34.539	-15.865	1.00	47.58	C
ATOM	9635	C	ALA	H	337	59.401	33.780	-15.447	1.00	46.88	C
ATOM	9636	O	ALA	H	337	60.477	34.365	-15.339	1.00	46.85	O
ATOM	9637	CB	ALA	H	337	58.025	34.533	-17.390	1.00	47.07	C
ATOM	9638	N	GLY	H	338	59.268	32.479	-15.216	1.00	45.84	N
ATOM	9639	CA	GLY	H	338	60.428	31.694	-14.837	1.00	44.74	C
ATOM	9640	C	GLY	H	338	60.166	30.625	-13.791	1.00	44.03	C
ATOM	9641	O	GLY	H	338	59.018	30.370	-13.408	1.00	43.61	O
ATOM	9642	N	GLU	H	339	61.245	30.004	-13.323	1.00	42.77	N
ATOM	9643	CA	GLU	H	339	61.152	28.942	-12.324	1.00	42.35	C
ATOM	9644	C	GLU	H	339	61.277	29.461	-10.895	1.00	40.94	C
ATOM	9645	O	GLU	H	339	62.246	30.136	-10.558	1.00	40.42	O
ATOM	9646	CB	GLU	H	339	62.233	27.880	-12.572	1.00	42.79	C
ATOM	9647	CG	GLU	H	339	62.137	26.664	-11.645	1.00	44.52	C
ATOM	9648	CD	GLU	H	339	63.097	25.539	-12.030	1.00	46.13	C
ATOM	9649	OE1	GLU	H	339	64.315	25.798	-12.120	1.00	47.18	O
ATOM	9650	OE2	GLU	H	339	62.636	24.394	-12.237	1.00	46.84	O
ATOM	9651	N	TYR	H	340	60.280	29.146	-10.072	1.00	39.59	N
ATOM	9652	CA	TYR	H	340	60.259	29.531	-8.664	1.00	38.28	C
ATOM	9653	C	TYR	H	340	60.448	28.290	-7.784	1.00	37.55	C
ATOM	9654	O	TYR	H	340	59.855	27.229	-8.034	1.00	37.22	O
ATOM	9655	CB	TYR	H	340	58.940	30.212	-8.305	1.00	38.61	C
ATOM	9656	CG	TYR	H	340	58.797	31.603	-8.884	1.00	39.74	C
ATOM	9657	CD1	TYR	H	340	58.677	31.799	-10.262	1.00	39.98	C
ATOM	9658	CD2	TYR	H	340	58.775	32.724	-8.054	1.00	39.49	C
ATOM	9659	CE1	TYR	H	340	58.536	33.077	-10.800	1.00	40.79	C
ATOM	9660	CE2	TYR	H	340	58.637	34.002	-8.578	1.00	40.34	C
ATOM	9661	CZ	TYR	H	340	58.517	34.176	-9.952	1.00	41.35	C
ATOM	9662	OH	TYR	H	340	58.382	35.445	-10.475	1.00	42.00	O
ATOM	9663	N	THR	H	341	61.266	28.425	-6.748	1.00	35.65	N
ATOM	9664	CA	THR	H	341	61.536	27.301	-5.872	1.00	34.71	C
ATOM	9665	C	THR	H	341	61.341	27.567	-4.387	1.00	34.35	C
ATOM	9666	O	THR	H	341	61.777	28.592	-3.864	1.00	33.93	O
ATOM	9667	CB	THR	H	341	62.985	26.800	-6.053	1.00	33.92	C
ATOM	9668	CG1	THR	H	341	63.166	26.323	-7.388	1.00	34.09	O
ATOM	9669	CG2	THR	H	341	63.306	25.687	-5.053	1.00	33.25	C
ATOM	9670	N	CYS	H	342	60.667	26.638	-3.720	1.00	33.12	N
ATOM	9671	CA	CYS	H	342	60.506	26.724	-2.278	1.00	33.28	C
ATOM	9672	C	CYS	H	342	61.601	25.807	-1.741	1.00	32.46	C
ATOM	9673	O	CYS	H	342	61.624	24.608	-2.048	1.00	32.40	O
ATOM	9674	CB	CYS	H	342	59.148	26.204	-1.818	1.00	33.42	C
ATOM	9675	SG	CYS	H	342	59.108	26.023	-0.019	1.00	36.87	S
ATOM	9676	N	LEU	H	343	62.514	26.366	-0.958	1.00	31.35	N
ATOM	9677	CA	LEU	H	343	63.617	25.586	-0.408	1.00	30.39	C
ATOM	9678	C	LEU	H	343	63.578	25.559	1.117	1.00	29.88	C
ATOM	9679	O	LEU	H	343	63.520	26.605	1.768	1.00	29.41	O
ATOM	9680	CB	LEU	H	343	64.946	26.166	-0.890	1.00	31.72	C
ATOM	9681	CG	LEU	H	343	66.223	25.422	-0.480	1.00	33.14	C
ATOM	9682	CD1	LEU	H	343	67.337	25.785	-1.432	1.00	34.29	C
ATOM	9683	CD2	LEU	H	343	66.600	25.767	0.962	1.00	34.27	C
ATOM	9684	N	ALA	H	344	63.606	24.351	1.678	1.00	28.52	N
ATOM	9685	CA	ALA	H	344	63.565	24.152	3.119	1.00	28.66	C
ATOM	9686	C	ALA	H	344	64.776	23.376	3.607	1.00	28.75	C
ATOM	9687	O	ALA	H	344	65.087	22.298	3.091	1.00	28.52	O
ATOM	9688	CB	ALA	H	344	62.290	23.402	3.519	1.00	26.24	C
ATOM	9689	N	GLY	H	345	65.451	23.917	4.616	1.00	28.93	N
ATOM	9690	CA	GLY	H	345	66.605	23.230	5.158	1.00	28.63	C
ATOM	9691	C	GLY	H	345	66.671	23.246	6.672	1.00	28.33	C
ATOM	9692	O	GLY	H	345	66.179	24.181	7.305	1.00	27.94	O
ATOM	9693	N	ASN	H	346	67.244	22.183	7.238	1.00	28.29	N
ATOM	9694	CA	ASN	H	346	67.470	22.061	8.677	1.00	29.80	C
ATOM	9695	C	ASN	H	346	68.912	21.547	8.843	1.00	30.24	C
ATOM	9696	O	ASN	H	346	69.619	21.360	7.849	1.00	28.99	O
ATOM	9697	CB	ASN	H	346	66.455	21.099	9.340	1.00	29.39	C
ATOM	9698	CG	ASN	H	346	66.493	19.675	8.768	1.00	31.32	C
ATOM	9699	OD1	ASN	H	346	67.527	19.196	8.307	1.00	30.86	O

Table 3

ATOM	9700	ND2	ASN	H	346	65.354	18.985	8.829	1.00	32.58	N
ATOM	9701	N	SER	H	347	69.339	21.323	10.084	1.00	32.25	N
ATOM	9702	CA	SER	H	347	70.694	20.839	10.374	1.00	33.21	C
ATOM	9703	C	SER	H	347	71.072	19.546	9.641	1.00	33.84	C
ATOM	9704	O	SER	H	347	72.235	19.323	9.328	1.00	34.09	O
ATOM	9705	CB	SER	H	347	70.844	20.629	11.887	1.00	34.51	C
ATOM	9706	OG	SER	H	347	69.870	19.718	12.394	1.00	34.95	O
ATOM	9707	N	ILE	H	348	70.084	18.699	9.367	1.00	34.13	N
ATOM	9708	CA	ILE	H	348	70.318	17.434	8.686	1.00	33.98	C
ATOM	9709	C	ILE	H	348	70.498	17.551	7.167	1.00	34.47	C
ATOM	9710	O	ILE	H	348	71.387	16.911	6.591	1.00	34.96	O
ATOM	9711	CB	ILE	H	348	69.168	16.454	9.014	1.00	34.31	C
ATOM	9712	CG1	ILE	H	348	69.134	16.207	10.525	1.00	33.70	C
ATOM	9713	CG2	ILE	H	348	69.363	15.145	8.273	1.00	35.12	C
ATOM	9714	CD1	ILE	H	348	67.761	15.971	11.081	1.00	35.74	C
ATOM	9715	N	GLY	H	349	69.667	18.364	6.520	1.00	34.17	N
ATOM	9716	CA	GLY	H	349	69.769	18.514	5.081	1.00	33.60	C
ATOM	9717	C	GLY	H	349	68.802	19.506	4.452	1.00	34.04	C
ATOM	9718	O	GLY	H	349	68.050	20.191	5.147	1.00	33.36	O
ATOM	9719	N	ILE	H	350	68.813	19.540	3.119	1.00	34.41	N
ATOM	9720	CA	ILE	H	350	68.006	20.452	2.308	1.00	34.58	C
ATOM	9721	C	ILE	H	350	67.033	19.750	1.354	1.00	35.06	C
ATOM	9722	O	ILE	H	350	67.360	18.715	0.780	1.00	35.43	O
ATOM	9723	CB	ILE	H	350	68.947	21.326	1.442	1.00	34.97	C
ATOM	9724	CG1	ILE	H	350	69.814	22.211	2.342	1.00	35.77	C
ATOM	9725	CG2	ILE	H	350	68.148	22.131	0.424	1.00	34.94	C
ATOM	9726	CD1	ILE	H	350	70.890	23.018	1.587	1.00	36.05	C
ATOM	9727	N	SER	H	351	65.850	20.336	1.180	1.00	34.68	N
ATOM	9728	CA	SER	H	351	64.824	19.816	0.269	1.00	33.71	C
ATOM	9729	C	SER	H	351	64.217	21.007	-0.467	1.00	33.16	C
ATOM	9730	O	SER	H	351	64.169	22.107	0.087	1.00	32.26	O
ATOM	9731	CB	SER	H	351	63.719	19.081	1.046	1.00	33.92	C
ATOM	9732	OG	SER	H	351	64.195	17.873	1.612	1.00	33.92	O
ATOM	9733	N	PHE	H	352	63.762	20.796	-1.703	1.00	32.29	N
ATOM	9734	CA	PHE	H	352	63.168	21.878	-2.483	1.00	32.43	C
ATOM	9735	C	PHE	H	352	62.276	21.395	-3.633	1.00	32.72	C
ATOM	9736	O	PHE	H	352	62.574	20.387	-4.281	1.00	31.63	O
ATOM	9737	CB	PHE	H	352	64.277	22.793	-3.031	1.00	33.11	C
ATOM	9738	CG	PHE	H	352	65.161	22.141	-4.067	1.00	34.50	C
ATOM	9739	CD1	PHE	H	352	64.707	21.946	-5.376	1.00	35.60	C
ATOM	9740	CD2	PHE	H	352	66.445	21.710	-3.735	1.00	35.05	C
ATOM	9741	CE1	PHE	H	352	65.517	21.330	-6.341	1.00	35.94	C
ATOM	9742	CE2	PHE	H	352	67.267	21.090	-4.690	1.00	35.60	C
ATOM	9743	CZ	PHE	H	352	66.804	20.900	-5.992	1.00	35.75	C
ATOM	9744	N	HIS	H	353	61.183	22.124	-3.870	1.00	32.24	N
ATOM	9745	CA	HIS	H	353	60.230	21.828	-4.947	1.00	32.60	C
ATOM	9746	C	HIS	H	353	60.123	23.081	-5.818	1.00	33.51	C
ATOM	9747	O	HIS	H	353	60.099	24.204	-5.297	1.00	33.35	O
ATOM	9748	CB	HIS	H	353	58.831	21.511	-4.398	1.00	30.97	C
ATOM	9749	CG	HIS	H	353	58.667	20.116	-3.881	1.00	29.85	C
ATOM	9750	ND1	HIS	H	353	57.445	19.623	-3.469	1.00	28.49	N
ATOM	9751	CD2	HIS	H	353	59.563	19.121	-3.673	1.00	30.21	C
ATOM	9752	CE1	HIS	H	353	57.597	18.387	-3.028	1.00	28.83	C
ATOM	9753	NE2	HIS	H	353	58.872	18.056	-3.139	1.00	27.96	N
ATOM	9754	N	SER	H	354	60.033	22.892	-7.133	1.00	33.84	N
ATOM	9755	CA	SER	H	354	59.951	24.011	-8.064	1.00	34.71	C
ATOM	9756	C	SER	H	354	58.698	24.018	-8.927	1.00	35.83	C
ATOM	9757	O	SER	H	354	58.082	22.982	-9.173	1.00	36.45	O
ATOM	9758	CB	SER	H	354	61.177	24.014	-8.979	1.00	33.91	C
ATOM	9759	OG	SER	H	354	62.365	24.081	-8.222	1.00	32.77	O
ATOM	9760	N	ALA	H	355	58.333	25.205	-9.387	1.00	36.67	N
ATOM	9761	CA	ALA	H	355	57.164	25.382	-10.236	1.00	38.27	C
ATOM	9762	C	ALA	H	355	57.507	26.462	-11.256	1.00	39.56	C
ATOM	9763	O	ALA	H	355	58.456	27.231	-11.068	1.00	38.77	O
ATOM	9764	CB	ALA	H	355	55.963	25.804	-9.398	1.00	36.50	C
ATOM	9765	N	TRP	H	356	56.741	26.518	-12.335	1.00	41.08	N

Table 3

ATOM	9766	CA	TRP	H	356	56.986	27.507	-13.370	1.00	43.37	C
ATOM	9767	C	TRP	H	356	55.856	28.520	-13.500	1.00	43.51	C
ATOM	9768	O	TRP	H	356	54.678	28.181	-13.360	1.00	42.74	O
ATOM	9769	CB	TRP	H	356	57.195	26.809	-14.713	1.00	46.21	C
ATOM	9770	CG	TRP	H	356	58.585	26.940	-15.259	1.00	49.86	C
ATOM	9771	CD1	TRP	H	356	59.119	28.023	-15.910	1.00	51.19	C
ATOM	9772	CD2	TRP	H	356	59.622	25.955	-15.199	1.00	51.39	C
ATOM	9773	NE1	TRP	H	356	60.428	27.770	-16.259	1.00	52.44	N
ATOM	9774	CE2	TRP	H	356	60.761	26.508	-15.834	1.00	52.70	C
ATOM	9775	CE3	TRP	H	356	59.700	24.659	-14.670	1.00	52.30	C
ATOM	9776	CD2	TRP	H	356	61.967	25.805	-15.956	1.00	53.75	C
ATOM	9777	CZ3	TRP	H	356	60.899	23.957	-14.790	1.00	53.65	C
ATOM	9778	CH2	TRP	H	356	62.016	24.533	-15.430	1.00	54.68	C
ATOM	9779	N	LEU	H	357	56.228	29.771	-13.749	1.00	43.57	N
ATOM	9780	CA	LEU	H	357	55.241	30.821	-13.948	1.00	44.37	C
ATOM	9781	C	LEU	H	357	55.264	31.210	-15.419	1.00	44.97	C
ATOM	9782	O	LEU	H	357	56.306	31.606	-15.943	1.00	44.95	O
ATOM	9783	CB	LEU	H	357	55.553	32.063	-13.102	1.00	43.75	C
ATOM	9784	CG	LEU	H	357	54.647	33.275	-13.395	1.00	43.33	C
ATOM	9785	CD1	LEU	H	357	53.199	32.930	-13.065	1.00	42.94	C
ATOM	9786	CD2	LEU	H	357	55.097	34.483	-12.592	1.00	42.64	C
ATOM	9787	N	THR	H	358	54.125	31.072	-16.088	1.00	46.14	N
ATOM	9788	CA	THR	H	358	54.021	31.455	-17.494	1.00	47.09	C
ATOM	9789	C	THR	H	358	53.217	32.748	-17.602	1.00	47.54	C
ATOM	9790	O	THR	H	358	52.111	32.851	-17.070	1.00	47.65	O
ATOM	9791	CB	THR	H	358	53.347	30.355	-18.357	1.00	47.36	C
ATOM	9792	OG1	THR	H	358	54.224	29.223	-18.454	1.00	46.99	O
ATOM	9793	CG2	THR	H	358	53.059	30.880	-19.769	1.00	47.09	C
ATOM	9794	N	VAL	H	359	53.798	33.739	-18.273	1.00	48.63	N
ATOM	9795	CA	VAL	H	359	53.150	35.035	-18.462	1.00	50.08	C
ATOM	9796	C	VAL	H	359	52.862	35.241	-19.946	1.00	51.19	C
ATOM	9797	O	VAL	H	359	53.779	35.297	-20.764	1.00	50.62	O
ATOM	9798	CB	VAL	H	359	54.040	36.198	-17.960	1.00	49.65	C
ATOM	9799	N	LEU	H	360	51.576	35.351	-20.280	1.00	52.47	N
ATOM	9800	CA	LEU	H	360	51.122	35.539	-21.659	1.00	53.75	C
ATOM	9801	C	LEU	H	360	50.855	37.013	-21.990	1.00	54.89	C
ATOM	9802	O	LEU	H	360	50.672	37.836	-21.086	1.00	54.42	O
ATOM	9803	CB	LEU	H	360	49.859	34.711	-21.882	1.00	52.68	C
ATOM	9804	CG	LEU	H	360	50.030	33.232	-21.527	1.00	52.35	C
ATOM	9805	CD1	LEU	H	360	48.682	32.530	-21.579	1.00	51.71	C
ATOM	9806	CD2	LEU	H	360	51.018	32.582	-22.494	1.00	51.91	C
ATOM	9807	N	PRO	H	361	50.829	37.360	-23.292	1.00	56.57	N
ATOM	9808	CA	PRO	H	361	50.587	38.734	-23.759	1.00	57.88	C
ATOM	9809	C	PRO	H	361	49.152	39.223	-23.536	1.00	59.14	C
ATOM	9810	O	PRO	H	361	48.215	38.421	-23.432	1.00	58.75	O
ATOM	9811	CB	PRO	H	361	50.945	38.653	-25.241	1.00	57.63	C
ATOM	9812	CG	PRO	H	361	50.519	37.252	-25.605	1.00	57.72	C
ATOM	9813	CD	PRO	H	361	51.068	36.459	-24.436	1.00	56.77	C
ATOM	9814	N	ALA	H	362	48.988	40.540	-23.458	1.00	60.86	N
ATOM	9815	CA	ALA	H	362	47.671	41.137	-23.245	1.00	62.45	C
ATOM	9816	C	ALA	H	362	47.003	41.386	-24.592	1.00	63.55	C
ATOM	9817	O	ALA	H	362	47.664	41.329	-25.630	1.00	63.78	O
ATOM	9818	CB	ALA	H	362	47.810	42.457	-22.470	1.00	62.08	C
ATOM	9819	N	PRO	H	363	45.687	41.657	-24.605	1.00	64.64	N
ATOM	9820	CA	PRO	H	363	44.919	41.923	-25.837	1.00	65.06	C
ATOM	9821	C	PRO	H	363	44.966	43.393	-26.248	1.00	65.26	C
ATOM	9822	O	PRO	H	363	45.828	43.746	-27.072	1.00	65.96	O
ATOM	9823	CB	PRO	H	363	43.491	41.523	-25.462	1.00	65.00	C
ATOM	9824	CG	PRO	H	363	43.656	40.661	-24.196	1.00	65.12	C
ATOM	9825	CD	PRO	H	363	44.777	41.349	-23.490	1.00	64.84	C

Table 3

HETATM	9827	S	SO4	9001	46.360	43.651	14.525	1.00	80.11	S
HETATM	9828	O1	SO4	9001	45.130	42.976	14.081	1.00	80.85	O
HETATM	9829	O2	SO4	9001	46.043	45.024	14.953	1.00	79.61	O
HETATM	9830	O3	SO4	9001	46.944	42.914	15.659	1.00	80.93	O
HETATM	9831	O4	SO4	9001	47.320	43.674	13.407	1.00	79.94	O
HETATM	9832	S	SO4	9002	39.893	32.643	-36.234	1.00	57.87	S
HETATM	9833	O1	SO4	9002	40.848	33.615	-36.811	1.00	58.67	O
HETATM	9834	O2	SO4	9002	40.300	31.273	-36.580	1.00	58.27	O
HETATM	9835	O3	SO4	9002	39.894	32.781	-34.766	1.00	57.83	O
HETATM	9836	O4	SO4	9002	38.548	32.894	-36.778	1.00	57.44	O
HETATM	9837	S	SO4	9003	76.012	20.398	36.658	1.00	64.33	S
HETATM	9838	O1	SO4	9003	76.273	20.228	35.214	1.00	64.38	O
HETATM	9839	O2	SO4	9003	76.984	19.588	37.421	1.00	65.03	O
HETATM	9840	O3	SO4	9003	76.155	21.819	37.013	1.00	64.70	O
HETATM	9841	O4	SO4	9003	74.644	19.964	36.986	1.00	63.96	O
HETATM	9842	S	SO4	9004	82.383	9.280	-14.072	1.00	88.97	S
HETATM	9843	O1	SO4	9004	82.503	10.218	-15.201	1.00	89.47	O
HETATM	9844	O2	SO4	9004	83.325	8.161	-14.260	1.00	88.96	O
HETATM	9845	O3	SO4	9004	82.686	9.986	-12.808	1.00	88.61	O
HETATM	9846	O4	SO4	9004	81.009	8.751	-14.037	1.00	89.30	O
HETATM	9847	O	HOH	8001	30.583	19.182	-20.544	1.00	21.98	O
HETATM	9848	O	HOH	8002	76.423	-6.864	9.843	1.00	23.00	O
HETATM	9849	O	HOH	8003	19.265	31.410	1.209	1.00	22.84	O
HETATM	9850	O	HOH	8004	61.744	-4.031	28.962	1.00	22.37	O
HETATM	9851	O	HOH	8005	66.826	33.841	20.938	1.00	23.18	O
HETATM	9852	O	HOH	8006	18.482	37.390	8.210	1.00	23.45	O
HETATM	9853	O	HOH	8007	54.625	15.653	-7.780	1.00	22.48	O
HETATM	9854	O	HOH	8008	59.923	9.805	49.344	1.00	26.25	O
HETATM	9855	O	HOH	8009	72.094	23.144	24.607	1.00	19.78	O
HETATM	9856	O	HOH	8010	14.982	26.494	6.291	1.00	21.68	O
HETATM	9857	O	HOH	8011	40.246	59.911	-9.530	1.00	24.78	O
HETATM	9858	O	HOH	8012	15.805	46.501	5.661	1.00	29.73	O
HETATM	9859	O	HOH	8013	55.380	21.613	-0.817	1.00	23.35	O
HETATM	9860	O	HOH	8014	16.573	46.338	9.812	1.00	24.34	O
HETATM	9861	O	HOH	8015	51.751	6.536	-5.223	1.00	27.38	O
HETATM	9862	O	HOH	8016	36.033	29.962	-24.110	1.00	23.25	O
HETATM	9863	O	HOH	8017	25.606	57.088	-28.459	1.00	22.89	O
HETATM	9864	O	HOH	8018	73.859	-2.056	4.603	1.00	19.45	O
HETATM	9865	O	HOH	8019	51.125	26.594	-5.604	1.00	24.70	O
HETATM	9866	O	HOH	8020	66.880	25.381	9.858	1.00	28.68	O
HETATM	9867	O	HOH	8021	38.023	25.055	-28.614	1.00	22.96	O
HETATM	9868	O	HOH	8022	26.996	30.474	-16.396	1.00	23.98	O
HETATM	9869	O	HOH	8023	25.809	19.877	-17.801	1.00	24.38	O
HETATM	9870	O	HOH	8024	45.339	47.075	-3.217	1.00	24.47	O
HETATM	9871	O	HOH	8025	58.457	26.484	18.703	1.00	28.38	O
HETATM	9872	O	HOH	8026	37.737	55.122	-4.166	1.00	21.76	O
HETATM	9873	O	HOH	8027	62.668	37.972	3.726	1.00	37.90	O
HETATM	9874	O	HOH	8028	76.437	-7.756	13.648	1.00	21.50	O
HETATM	9875	O	HOH	8029	52.710	6.639	-9.379	1.00	25.02	O
HETATM	9876	O	HOH	8030	81.344	5.935	3.580	1.00	25.92	O
HETATM	9877	O	HOH	8031	23.909	43.293	-49.084	1.00	22.88	O
HETATM	9878	O	HOH	8032	24.078	33.069	8.400	1.00	30.55	O
HETATM	9879	O	HOH	8033	49.020	60.054	-0.925	1.00	30.74	O
HETATM	9880	O	HOH	8034	74.099	28.029	29.070	1.00	28.15	O
HETATM	9881	O	HOH	8035	65.801	0.287	24.875	1.00	34.23	O
HETATM	9882	O	HOH	8036	58.785	1.057	-24.404	1.00	24.39	O
HETATM	9883	O	HOH	8037	28.568	14.884	-9.616	1.00	34.53	O
HETATM	9884	O	HOH	8038	54.116	2.380	-18.860	1.00	29.41	O
HETATM	9885	O	HOH	8039	30.881	27.679	-9.394	1.00	27.68	O
HETATM	9886	O	HOH	8040	65.552	4.439	59.031	1.00	25.86	O
HETATM	9887	O	HOH	8041	65.513	10.326	-17.439	1.00	30.59	O
HETATM	9888	O	HOH	8042	17.929	50.681	19.191	1.00	28.19	O
HETATM	9889	O	HOH	8043	68.778	6.931	16.604	1.00	39.86	O
HETATM	9890	O	HOH	8044	67.164	12.773	5.516	1.00	33.07	O
HETATM	9891	O	HOH	8045	55.249	8.894	45.955	1.00	29.25	O

Table 3

HETATM	9892	O	H0H	8046	22.665	51.933	24.883	1.00	28.14	O
HETATM	9893	O	H0H	8047	37.888	61.108	-2.570	1.00	31.13	O
HETATM	9894	O	H0H	8048	49.282	61.990	-14.155	1.00	36.20	O
HETATM	9895	O	H0H	8049	79.384	-12.820	-6.839	1.00	37.30	O
HETATM	9896	O	H0H	8050	26.570	15.111	-3.236	1.00	37.60	O
HETATM	9897	O	H0H	8051	19.038	44.180	-45.467	1.00	26.94	O
HETATM	9898	O	H0H	8052	60.388	25.333	28.267	1.00	27.06	O
HETATM	9899	O	H0H	8053	23.414	15.233	9.873	1.00	34.15	O
HETATM	9900	O	H0H	8054	66.392	27.654	3.426	1.00	31.42	O
HETATM	9901	O	H0H	8055	62.016	33.264	18.060	1.00	33.13	O
HETATM	9902	O	H0H	8056	43.462	65.933	7.208	1.00	44.73	O
HETATM	9903	O	H0H	8057	69.239	2.254	10.867	1.00	38.73	O
HETATM	9904	O	H0H	8058	14.577	44.517	4.008	1.00	33.29	O
HETATM	9905	O	H0H	8059	85.110	-7.051	1.368	1.00	35.88	O
HETATM	9906	O	H0H	8060	45.130	48.451	2.474	1.00	30.78	O
HETATM	9907	O	H0H	8061	63.059	22.563	16.774	1.00	23.95	O
HETATM	9908	O	H0H	8062	73.904	-8.163	3.078	1.00	36.65	O
HETATM	9909	O	H0H	8063	53.387	0.804	26.358	1.00	32.68	O
HETATM	9910	O	H0H	8064	13.296	34.466	4.116	1.00	29.56	O
HETATM	9911	O	H0H	8065	29.710	52.865	-24.449	1.00	30.83	O
HETATM	9912	O	H0H	8066	67.684	22.717	12.581	1.00	28.39	O
HETATM	9913	O	H0H	8067	18.064	52.076	-30.370	1.00	32.76	O
HETATM	9914	O	H0H	8068	85.007	-9.066	15.009	1.00	43.17	O
HETATM	9915	O	H0H	8069	15.569	35.041	9.972	1.00	31.63	O
HETATM	9916	O	H0H	8070	17.191	52.234	-25.947	1.00	35.07	O
HETATM	9917	O	H0H	8071	30.314	25.533	-3.007	1.00	32.66	O
HETATM	9918	O	H0H	8072	47.442	66.967	-17.665	1.00	31.12	O
HETATM	9919	O	H0H	8073	34.258	51.896	-24.228	1.00	34.62	O
HETATM	9920	O	H0H	8074	66.403	-0.525	21.596	1.00	30.11	O
HETATM	9921	O	H0H	8075	17.325	49.223	0.994	1.00	37.88	O
HETATM	9922	O	H0H	8076	59.434	37.817	-9.613	1.00	27.94	O
HETATM	9923	O	H0H	8077	27.027	41.793	38.232	1.00	37.52	O
HETATM	9924	O	H0H	8078	40.302	60.801	-13.194	1.00	22.94	O
HETATM	9925	O	H0H	8079	81.263	-10.005	4.030	1.00	29.81	O
HETATM	9926	O	H0H	8080	27.556	33.013	-16.634	1.00	31.61	O
HETATM	9927	O	H0H	8081	53.479	3.973	-0.763	1.00	40.24	O
HETATM	9928	O	H0H	8082	29.612	42.889	17.699	1.00	34.12	O
HETATM	9929	O	H0H	8083	31.582	30.335	-12.062	1.00	31.47	O
HETATM	9930	O	H0H	8084	69.184	6.616	-7.967	1.00	37.68	O
HETATM	9931	O	H0H	8085	56.292	20.021	11.107	1.00	29.89	O
HETATM	9932	O	H0H	8086	25.472	24.891	-11.314	1.00	30.53	O
HETATM	9933	O	H0H	8087	81.124	4.621	-1.975	1.00	28.02	O
HETATM	9934	O	H0H	8088	78.096	-1.640	12.197	1.00	29.00	O
HETATM	9935	O	H0H	8089	13.865	47.316	7.506	1.00	32.89	O
HETATM	9936	O	H0H	8090	61.310	28.601	8.211	1.00	24.59	O
HETATM	9937	O	H0H	8091	17.421	23.402	-6.076	1.00	34.31	O
HETATM	9938	O	H0H	8092	57.812	10.445	0.414	1.00	28.37	O
HETATM	9939	O	H0H	8093	58.384	32.757	14.907	1.00	33.51	O
HETATM	9940	O	H0H	8094	24.207	27.604	-27.914	1.00	28.18	O
HETATM	9941	O	H0H	8095	63.100	11.384	-37.852	1.00	39.50	O
HETATM	9942	O	H0H	8096	71.145	17.722	1.891	1.00	42.96	O
HETATM	9943	O	H0H	8097	29.409	48.671	-58.806	1.00	28.48	O
HETATM	9944	O	H0H	8098	26.815	49.289	28.620	1.00	27.67	O
HETATM	9945	O	H0H	8099	63.739	20.042	17.105	1.00	29.92	O
HETATM	9946	O	H0H	8100	16.197	48.146	-40.012	1.00	36.11	O
HETATM	9947	O	H0H	8101	28.797	19.484	-13.783	1.00	30.27	O
HETATM	9948	O	H0H	8102	74.942	-5.515	-6.685	1.00	32.65	O
HETATM	9949	O	H0H	8103	25.351	24.480	-7.993	1.00	26.19	O
HETATM	9950	O	H0H	8104	74.186	34.192	19.566	1.00	29.84	O
HETATM	9951	O	H0H	8105	83.633	-13.959	18.198	1.00	32.48	O
HETATM	9952	O	H0H	8106	52.144	19.807	-15.029	1.00	47.82	O
HETATM	9953	O	H0H	8107	79.030	-3.693	18.591	1.00	37.03	O
HETATM	9954	O	H0H	8108	15.025	52.871	-28.124	1.00	35.88	O
HETATM	9955	O	H0H	8109	55.203	14.515	1.204	1.00	26.74	O
HETATM	9956	O	H0H	8110	50.909	12.754	-20.344	1.00	35.29	O
HETATM	9957	O	H0H	8111	48.196	16.287	-16.372	1.00	36.40	O

Table 3

HETATM 9958	O	HOH	8112	45.057	63.127	-3.521	1.00	28.95	O
HETATM 9959	O	HOH	8113	66.876	9.858	-36.882	1.00	29.60	O
HETATM 9960	O	HOH	8114	51.733	17.941	-9.585	1.00	32.25	O
HETATM 9961	O	HOH	8115	14.959	24.873	8.383	1.00	31.68	O
HETATM 9962	O	HOH	8116	54.406	3.719	51.786	1.00	34.52	O
HETATM 9963	O	HOH	8117	47.786	29.136	-13.190	1.00	43.19	O
HETATM 9964	O	HOH	8118	16.528	42.222	4.279	1.00	29.03	O
HETATM 9965	O	HOH	8119	22.165	20.253	-14.491	1.00	32.49	O
HETATM 9966	O	HOH	8120	38.018	18.783	-19.030	1.00	29.87	O
HETATM 9967	O	HOH	8121	12.676	52.034	13.008	1.00	33.57	O
HETATM 9968	O	HOH	8122	30.241	53.649	-21.241	1.00	31.91	O
HETATM 9969	O	HOH	8123	40.855	50.843	-9.251	1.00	36.33	O
HETATM 9970	O	HOH	8124	16.414	33.295	15.556	1.00	39.62	O
HETATM 9971	O	HOH	8125	18.353	48.759	30.683	1.00	35.44	O
HETATM 9972	O	HOH	8126	27.919	64.251	-31.560	1.00	39.39	O
HETATM 9973	O	HOH	8127	54.074	11.927	-1.836	1.00	20.42	O
HETATM 9974	O	HOH	8128	67.489	10.620	-5.827	1.00	24.90	O
HETATM 9975	O	HOH	8129	56.468	32.717	-20.169	1.00	34.22	O
HETATM 9976	O	HOH	8130	37.565	9.799	-16.847	1.00	39.96	O
HETATM 9977	O	HOH	8131	76.829	1.988	9.827	1.00	41.86	O
HETATM 9978	O	HOH	8132	43.003	56.760	-18.029	1.00	32.10	O
HETATM 9979	O	HOH	8133	33.394	50.852	-10.344	1.00	45.63	O
HETATM 9980	O	HOH	8134	57.923	33.762	28.761	1.00	35.78	O
HETATM 9981	O	HOH	8135	63.084	-8.959	36.290	1.00	42.92	O
HETATM 9982	O	HOH	8136	21.708	42.750	0.109	1.00	32.64	O
HETATM 9983	O	HOH	8137	48.251	-2.260	29.824	1.00	47.66	O
HETATM 9984	O	HOH	8138	64.982	33.645	14.162	1.00	32.84	O
HETATM 9985	O	HOH	8139	37.774	30.276	-18.377	1.00	25.37	O
HETATM 9986	O	HOH	8140	20.175	20.176	20.621	1.00	40.03	O
HETATM 9987	O	HOH	8141	15.210	32.340	9.751	1.00	30.63	O
HETATM 9988	O	HOH	8142	53.556	29.620	6.545	1.00	35.87	O
HETATM 9989	O	HOH	8143	52.402	5.039	40.375	1.00	36.45	O
HETATM 9990	O	HOH	8144	41.944	54.575	-11.736	1.00	25.88	O
HETATM 9991	O	HOH	8145	14.808	40.343	20.475	1.00	36.26	O
HETATM 9992	O	HOH	8146	36.235	53.078	-4.162	1.00	24.78	O
HETATM 9993	O	HOH	8147	51.322	20.699	-9.253	1.00	34.49	O
HETATM 9994	O	HOH	8148	44.258	30.807	-17.555	1.00	46.92	O
HETATM 9995	O	HOH	8149	11.904	21.107	9.147	1.00	41.29	O
HETATM 9996	O	HOH	8150	72.373	-0.009	4.822	1.00	28.51	O
HETATM 9997	O	HOH	8151	20.170	33.123	-10.615	1.00	28.26	O
HETATM 9998	O	HOH	8152	60.563	-6.573	58.339	1.00	43.96	O
HETATM 9999	O	HOH	8153	57.895	28.648	13.774	1.00	30.15	O
HETATM10000	O	HOH	8154	53.947	23.638	7.544	1.00	41.95	O
HETATM10001	O	HOH	8155	13.166	53.396	-31.308	1.00	44.46	O
HETATM10002	O	HOH	8156	38.690	58.693	7.177	1.00	27.24	O
HETATM10003	O	HOH	8157	51.253	0.008	28.416	1.00	35.72	O
HETATM10004	O	HOH	8158	18.004	41.137	2.217	1.00	20.61	O
HETATM10005	O	HOH	8159	54.755	37.212	-0.604	1.00	29.83	O
HETATM10006	O	HOH	8160	18.580	15.949	0.946	1.00	34.15	O
HETATM10007	O	HOH	8161	57.339	-4.703	41.534	1.00	33.68	O
HETATM10008	O	HOH	8162	68.790	10.518	33.158	1.00	44.07	O
HETATM10009	O	HOH	8163	48.266	4.423	-10.271	1.00	23.22	O
HETATM10010	O	HOH	8164	32.688	42.614	-32.515	1.00	43.90	O
HETATM10011	O	HOH	8165	64.899	38.193	10.025	1.00	34.17	O
HETATM10012	O	HOH	8166	19.100	38.573	-0.767	1.00	25.16	O
HETATM10013	O	HOH	8167	64.226	8.781	-37.188	1.00	26.93	O
HETATM10014	O	HOH	8168	29.180	37.941	4.587	1.00	30.90	O
HETATM10015	O	HOH	8169	63.251	7.981	-34.694	1.00	20.84	O
HETATM10016	O	HOH	8170	32.539	48.870	-25.937	1.00	40.48	O
HETATM10017	O	HOH	8171	55.576	29.806	14.321	1.00	25.66	O
HETATM10018	O	HOH	8172	21.748	19.472	-28.189	1.00	30.89	O
HETATM10019	O	HOH	8173	48.653	0.885	-12.564	1.00	33.10	O
HETATM10020	O	HOH	8174	50.731	8.561	-3.840	1.00	26.40	O
HETATM10021	O	HOH	8175	67.331	8.027	58.226	1.00	26.20	O
HETATM10022	O	HOH	8176	64.354	3.045	-26.220	1.00	32.54	O
HETATM10023	O	HOH	8177	39.113	62.755	-7.021	1.00	27.10	O

Table 3

HETATM10024	O	HOH	8178	46.583	45.195	-4.701	1.00	30.19	O
HETATM10025	O	HOH	8179	31.224	45.086	-57.745	1.00	26.44	O
HETATM10026	O	HOH	8180	67.620	7.867	-17.944	1.00	33.64	O
HETATM10027	O	HOH	8181	68.440	4.360	25.981	1.00	38.96	O
HETATM10028	O	HOH	8182	24.285	56.988	-21.046	1.00	34.78	O
HETATM10029	O	HOH	8183	60.110	20.079	-7.760	1.00	31.63	O
HETATM10030	O	HOH	8184	21.199	57.796	-41.110	1.00	37.92	O
HETATM10031	O	HOH	8185	59.503	24.146	17.040	1.00	28.08	O
HETATM10032	O	HOH	8186	60.538	-3.909	21.754	1.00	33.98	O
HETATM10033	O	HOH	8187	50.010	5.646	-7.056	1.00	28.66	O
HETATM10034	O	HOH	8188	86.579	2.282	-6.040	1.00	38.85	O
HETATM10035	O	HOH	8189	35.299	34.821	-1.319	1.00	36.49	O
HETATM10036	O	HOH	8190	83.307	-8.029	7.975	1.00	29.74	O
HETATM10037	O	HOH	8191	44.187	65.659	-4.506	1.00	31.35	O
HETATM10038	O	HOH	8192	30.932	40.093	-5.050	1.00	33.10	O
HETATM10039	O	HOH	8193	56.018	31.976	28.056	1.00	33.87	O
HETATM10040	O	HOH	8194	27.127	45.046	35.049	1.00	24.02	O
HETATM10041	O	HOH	8195	73.921	22.935	18.943	1.00	29.41	O
HETATM10042	O	HOH	8196	18.153	50.887	32.927	1.00	43.89	O
HETATM10043	O	HOH	8197	64.984	6.884	58.308	1.00	27.06	O
HETATM10044	O	HOH	8198	23.014	13.926	7.613	1.00	40.19	O
HETATM10045	O	HOH	8199	48.401	26.009	-5.169	1.00	30.24	O
HETATM10046	O	HOH	8200	66.865	-7.653	21.825	1.00	30.37	O
HETATM10047	O	HOH	8201	45.045	48.534	-8.439	1.00	34.67	O
HETATM10048	O	HOH	8202	17.155	51.924	0.154	1.00	41.46	O
HETATM10049	O	HOH	8203	43.366	53.992	-17.926	1.00	35.60	O
HETATM10050	O	HOH	8204	17.215	35.488	26.426	1.00	45.03	O
HETATM10051	O	HOH	8205	61.642	28.204	11.796	1.00	29.48	O
HETATM10052	O	HOH	8206	60.187	42.226	22.209	1.00	40.71	O
HETATM10053	O	HOH	8207	77.953	27.539	35.830	1.00	34.42	O
HETATM10054	O	HOH	8208	25.995	34.365	7.024	1.00	28.38	O
HETATM10055	O	HOH	8209	15.844	31.108	11.675	1.00	33.02	O
HETATM10056	O	HOH	8210	12.732	15.752	6.140	1.00	40.56	O
HETATM10057	O	HOH	8211	62.907	2.915	62.753	1.00	30.92	O
HETATM10058	O	HOH	8212	24.044	10.937	-21.880	1.00	42.40	O
HETATM10059	O	HOH	8213	79.343	-1.121	18.453	1.00	33.07	O
HETATM10060	O	HOH	8214	68.004	33.744	5.930	1.00	33.70	O
HETATM10061	O	HOH	8215	76.210	17.950	33.459	1.00	38.92	O
HETATM10062	O	HOH	8216	41.987	23.581	-37.300	1.00	44.75	O
HETATM10063	O	HOH	8217	80.531	11.139	-10.855	1.00	40.75	O
HETATM10064	O	HOH	8218	61.409	0.815	-24.031	1.00	29.53	O
HETATM10065	O	HOH	8219	65.745	12.430	-11.075	1.00	34.48	O
HETATM10066	O	HOH	8220	17.792	29.223	-7.156	1.00	34.49	O
HETATM10067	O	HOH	8221	50.809	25.767	6.138	1.00	33.13	O
HETATM10068	O	HOH	8222	16.549	52.909	10.612	1.00	32.50	O
HETATM10069	O	HOH	8223	47.243	61.049	-7.633	1.00	29.91	O
HETATM10070	O	HOH	8224	28.774	46.253	-57.672	1.00	27.24	O
HETATM10071	O	HOH	8225	12.249	27.080	5.705	1.00	33.04	O
HETATM10072	O	HOH	8226	46.668	57.243	-23.318	1.00	40.27	O
HETATM10073	O	HOH	8227	82.077	-14.452	5.876	1.00	36.27	O
HETATM10074	O	HOH	8228	40.389	30.876	-17.266	1.00	30.97	O
HETATM10075	O	HOH	8229	49.327	18.630	-3.627	1.00	27.94	O
HETATM10076	O	HOH	8230	30.848	43.282	37.200	1.00	29.75	O
HETATM10077	O	HOH	8231	27.538	34.519	36.719	1.00	43.67	O
HETATM10078	O	HOH	8232	14.545	35.316	-2.739	1.00	36.62	O
HETATM10079	O	HOH	8233	34.553	42.907	-11.613	1.00	38.00	O
HETATM10080	O	HOH	8234	50.214	50.520	6.739	1.00	38.64	O
HETATM10081	O	HOH	8235	19.251	23.087	-13.713	1.00	28.03	O
HETATM10082	O	HOH	8236	30.812	60.706	-21.436	1.00	28.95	O
HETATM10083	O	HOH	8237	66.757	11.655	-26.300	1.00	39.69	O
HETATM10084	O	HOH	8238	35.046	35.455	-12.734	1.00	39.15	O
HETATM10085	O	HOH	8239	23.172	32.494	-15.018	1.00	36.10	O
HETATM10086	O	HOH	8240	12.204	48.652	10.766	1.00	31.97	O
HETATM10087	O	HOH	8241	32.636	46.110	-16.084	1.00	33.67	O
HETATM10088	O	HOH	8242	23.375	28.819	-16.529	1.00	28.89	O
HETATM10089	O	HOH	8243	33.092	46.467	8.373	1.00	34.92	O

Table 3

HETATM10090	O	HOH	8244	75.191	-15.210	1.700	1.00	34.77	O
HETATM10091	O	HOH	8245	51.102	7.512	-30.877	1.00	39.35	O
HETATM10092	O	HOH	8246	29.649	40.776	11.607	1.00	36.74	O
HETATM10093	O	HOH	8247	64.241	-11.167	31.991	1.00	36.77	O
HETATM10094	O	HOH	8248	35.807	52.227	-37.837	1.00	42.89	O
HETATM10095	O	HOH	8249	21.004	47.633	-18.472	1.00	43.58	O
HETATM10096	O	HOH	8250	20.104	21.077	-27.523	1.00	37.70	O
HETATM10097	O	HOH	8251	82.131	-14.102	-15.373	1.00	46.38	O
HETATM10098	O	HOH	8252	52.596	0.316	-10.214	1.00	33.07	O
HETATM10099	O	HOH	8253	54.192	1.046	30.601	1.00	35.61	O
HETATM10100	O	HOH	8254	28.240	44.984	-53.215	1.00	30.80	O
HETATM10101	O	HOH	8255	64.550	-3.466	-2.475	1.00	37.95	O
HETATM10102	O	HOH	8256	16.260	21.918	-28.169	1.00	42.28	O
HETATM10103	O	HOH	8257	31.591	44.914	17.918	1.00	30.56	O
HETATM10104	O	HOH	8258	63.725	18.485	-36.455	1.00	41.83	O
HETATM10105	O	HOH	8259	54.594	4.317	-30.127	1.00	36.36	O
HETATM10106	O	HOH	8260	12.031	48.610	15.939	1.00	34.32	O
HETATM10107	O	HOH	8261	62.047	0.039	1.306	1.00	40.89	O
HETATM10108	O	HOH	8262	63.743	26.826	40.506	1.00	38.51	O
HETATM10109	O	HOH	8263	80.317	-12.708	5.435	1.00	35.75	O

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MASTER 540 0 4 24 123 0 0 610101 8 36 112

Table 4
Stem Cell Factor Dimer

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HEADER      HORMONE/GROWTH FACTOR                      05-MAY-00  1EXZ
TITLE       STRUCTURE OF STEM CELL FACTOR
COMPND      MOL_ID: 1;
COMPND      2 MOLECULE: STEM CELL FACTOR;
COMPND      3 CHAIN: A, B, C, D;
COMPND      4 FRAGMENT: 26-166;
COMPND      5 SYNONYM: SCF;
COMPND      6 ENGINEERED: YES
SOURCE      MOL_ID: 1;
SOURCE      2 ORGANISM_SCIENTIFIC: HOMO SAPIENS;
SOURCE      3 ORGANISM_COMMON: HUMAN;
SOURCE      4 EXPRESSION_SYSTEM: ESCHERICHIA COLI;
SOURCE      5 EXPRESSION_SYSTEM_COMMON: BACTERIA
KEYWDS      SCF
EXPDTA      X-RAY DIFFRACTION
AUTHOR      Z.ZHANG,R.ZHANG,A.JOACHIMIAK,J.SCHLESSINGER,X.KONG
REVDAT      1 06-JUL-00 1EXZ 0
JRNL        AUTH  Z.ZHANG,R.ZHANG,A.JOACHIMIAK,J.SCHLESSINGER,X.KONG
JRNL        TITL  CRYSTAL STRUCTURE OF HUMAN STEM CELL FACTOR:
JRNL        TITL 2 IMPLICATION FOR STEM CELL FACTOR RECEPTOR
JRNL        TITL 3 DIMERIZATION AND ACTIVATION.
JRNL        REF   PROC.NAT.ACAD.SCI.USA  V. 97 7732 2000
JRNL        REFN  ASTM PNASA6 US ISSN 0027-8424

REMARK      1
REMARK      2
REMARK      2 RESOLUTION. 2.30 ANGSTROMS.
REMARK      3
REMARK      3 REFINEMENT.
REMARK      3 PROGRAM      : CNS
REMARK      3 AUTHORS      : BRUNGER,ADAMS,CLORE,DELANO,GROS,GROSSE-
REMARK      3                  : KUNSTLEVE,JIANG,KUSZEWSKI,NILGES, PANNU,
REMARK      3                  : READ,RICE,SIMONSON,WARREN
REMARK      3
REMARK      3 REFINEMENT TARGET : MLF
REMARK      3
REMARK      3 DATA USED IN REFINEMENT.
REMARK      3 RESOLUTION RANGE HIGH (ANGSTROMS) : 2.30
REMARK      3 RESOLUTION RANGE LOW  (ANGSTROMS) : 40.00
REMARK      3 DATA CUTOFF              (SIGMA(F)) : 2.000
REMARK      3 OUTLIER CUTOFF HIGH (RMS(ABS(F))) : NULL
REMARK      3 COMPLETENESS (WORKING+TEST) (%) : 10.0
REMARK      3 NUMBER OF REFLECTIONS          : 21494
REMARK      3
REMARK      3
REMARK      3 FIT TO DATA USED IN REFINEMENT.
REMARK      3 CROSS-VALIDATION METHOD          : NULL
REMARK      3 FREE R VALUE TEST SET SELECTION : RANDOMLY SELECTED 10%
REMARK      3                                 OF REFLECTIONS
REMARK      3 R VALUE                        (WORKING SET) : 0.223
REMARK      3 FREE R VALUE                    : 0.294
REMARK      3 FREE R VALUE TEST SET SIZE (%) : NULL
REMARK      3 FREE R VALUE TEST SET COUNT     : 2133
REMARK      3 ESTIMATED ERROR OF FREE R VALUE : NULL

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REMARK 3
REMARK 3 FIT IN THE HIGHEST RESOLUTION BIN.
REMARK 3 TOTAL NUMBER OF BINS USED : NULL
REMARK 3 BIN RESOLUTION RANGE HIGH (A) : NULL
REMARK 3 BIN RESOLUTION RANGE LOW (A) : NULL
REMARK 3 BIN COMPLETENESS (WORKING+TEST) (%) : NULL
REMARK 3 REFLECTIONS IN BIN (WORKING SET) : NULL
REMARK 3 BIN R VALUE (WORKING SET) : NULL
REMARK 3 BIN FREE R VALUE : NULL
REMARK 3 BIN FREE R VALUE TEST SET SIZE (%) : NULL
REMARK 3 BIN FREE R VALUE TEST SET COUNT : NULL
REMARK 3 ESTIMATED ERROR OF BIN FREE R VALUE : NULL
REMARK 3
REMARK 3 NUMBER OF NON-HYDROGEN ATOMS USED IN REFINEMENT.
REMARK 3 PROTEIN ATOMS : 4090
REMARK 3 NUCLEIC ACID ATOMS : 0
REMARK 3 HETEROGEN ATOMS : 14
REMARK 3 SOLVENT ATOMS : 132
REMARK 3
REMARK 3 B VALUES.
REMARK 3 FROM WILSON PLOT (A**2) : 45.00
REMARK 3 MEAN B VALUE (OVERALL, A**2) : NULL
REMARK 3 OVERALL ANISOTROPIC B VALUE.
REMARK 3 B11 (A**2) : NULL
REMARK 3 B22 (A**2) : NULL
REMARK 3 B33 (A**2) : NULL
REMARK 3 B12 (A**2) : NULL
REMARK 3 B13 (A**2) : NULL
REMARK 3 B23 (A**2) : NULL
REMARK 3
REMARK 3 ESTIMATED COORDINATE ERROR.
REMARK 3 ESD FROM LUZZATI PLOT (A) : NULL
REMARK 3 ESD FROM SIGMAA (A) : NULL
REMARK 3 LOW RESOLUTION CUTOFF (A) : NULL
REMARK 3
REMARK 3 CROSS-VALIDATED ESTIMATED COORDINATE ERROR.
REMARK 3 ESD FROM C-V LUZZATI PLOT (A) : NULL
REMARK 3 ESD FROM C-V SIGMAA (A) : NULL
REMARK 3
REMARK 3 RMS DEVIATIONS FROM IDEAL VALUES.
REMARK 3 BOND LENGTHS (A) : 0.007
REMARK 3 BOND ANGLES (DEGREES) : 1.22
REMARK 3 DIHEDRAL ANGLES (DEGREES) : NULL
REMARK 3 IMPROPER ANGLES (DEGREES) : NULL
REMARK 3
REMARK 3 ISOTROPIC THERMAL MODEL : NULL
REMARK 3
REMARK 3 ISOTROPIC THERMAL FACTOR RESTRAINTS. RMS SIGMA
REMARK 3 MAIN-CHAIN BOND (A**2) : NULL ; NULL
REMARK 3 MAIN-CHAIN ANGLE (A**2) : NULL ; NULL
REMARK 3 SIDE-CHAIN BOND (A**2) : NULL ; NULL
REMARK 3 SIDE-CHAIN ANGLE (A**2) : NULL ; NULL
REMARK 3
REMARK 3
REMARK 3 BULK SOLVENT MODELING.
REMARK 3 METHOD USED : NULL
REMARK 3 KSOL : NULL
REMARK 3 BSOL : NULL
REMARK 3

```

Table 4

REMARK 3 NCS MODEL : NULL
REMARK 3
REMARK 3 NCS RESTRAINTS. RMS SIGMA/WEIGHT
REMARK 3 GROUP 1 POSITIONAL (A) : NULL ; NULL
REMARK 3 GROUP 1 B-FACTOR (A**2) : NULL ; NULL
REMARK 3
REMARK 3 PARAMETER FILE 1 : NULL
REMARK 3 TOPOLOGY FILE 1 : NULL
REMARK 3
REMARK 3 OTHER REFINEMENT REMARKS: MAXIMUM LIKELIHOOD TARGET USING
REMARK 3 AMPLITUDES
REMARK 4
REMARK 4 1EXZ COMPLIES WITH FORMAT V. 2.3, 09-JULY-1998
REMARK 100
REMARK 100 THIS ENTRY HAS BEEN PROCESSED BY RCSB ON 12-MAY-2000.
REMARK 100 THE RCSB ID CODE IS RCSB011008.
REMARK 200
REMARK 200 EXPERIMENTAL DETAILS
REMARK 200 EXPERIMENT TYPE : X-RAY DIFFRACTION
REMARK 200 DATE OF DATA COLLECTION : 26-NOV-1999
REMARK 200 TEMPERATURE (KELVIN) : 100.0
REMARK 200 PH : 7.00
REMARK 200 NUMBER OF CRYSTALS USED : 1
REMARK 200
REMARK 200 SYNCHROTRON (Y/N) : Y; Y
REMARK 200 RADIATION SOURCE : APS ; APS
REMARK 200 BEAMLINE : 19ID; 19ID
REMARK 200 X-RAY GENERATOR MODEL : NULL
REMARK 200 MONOCHROMATIC OR LAUE (M/L) : M
REMARK 200 WAVELENGTH OR RANGE (A) : 1.03; 1.55
REMARK 200 MONOCHROMATOR : NULL
REMARK 200 OPTICS : NULL
REMARK 200
REMARK 200 DETECTOR TYPE : CCD
REMARK 200 DETECTOR MANUFACTURER : BRANDEIS
REMARK 200 INTENSITY-INTEGRATION SOFTWARE : DENZO
REMARK 200 DATA SCALING SOFTWARE : SCALEPACK
REMARK 200
REMARK 200 NUMBER OF UNIQUE REFLECTIONS : 21454
REMARK 200 RESOLUTION RANGE HIGH (A) : 2.300
REMARK 200 RESOLUTION RANGE LOW (A) : 40.000
REMARK 200 REJECTION CRITERIA (SIGMA(I)) : 2.000
REMARK 200
REMARK 200 OVERALL.
REMARK 200 COMPLETENESS FOR RANGE (%) : 99.5
REMARK 200 DATA REDUNDANCY : 8.000
REMARK 200 R MERGE (I) : 0.05800
REMARK 200 R SYM (I) : NULL
REMARK 200 <I/SIGMA(I)> FOR THE DATA SET : 29.0000
REMARK 200
REMARK 200 IN THE HIGHEST RESOLUTION SHELL.
REMARK 200 HIGHEST RESOLUTION SHELL, RANGE HIGH (A) : 2.30
REMARK 200 HIGHEST RESOLUTION SHELL, RANGE LOW (A) : 2.38
REMARK 200 COMPLETENESS FOR SHELL (%) : 90.1
REMARK 200 DATA REDUNDANCY IN SHELL : 7.00
REMARK 200 R MERGE FOR SHELL (I) : 0.25000
REMARK 200 R SYM FOR SHELL (I) : NULL
REMARK 200 <I/SIGMA(I)> FOR SHELL : NULL
REMARK 200

Table 4

REMARK 200 DIFFRACTION PROTOCOL: SINGLE WAVELENGTH
 REMARK 200 METHOD USED TO DETERMINE THE STRUCTURE: NULL
 REMARK 200 SOFTWARE USED: PHASES
 REMARK 200 STARTING MODEL: NULL
 REMARK 200
 REMARK 200 REMARK: NULL
 REMARK 280
 REMARK 280 CRYSTAL
 REMARK 280 SOLVENT CONTENT, VS (%): NULL
 REMARK 280 MATTHEWS COEFFICIENT, VM (ANGSTROMS**3/DA): NULL
 REMARK 280
 REMARK 280 CRYSTALLIZATION CONDITIONS: 28% PEG 400, 250 MM CaCl₂, 1
 REMARK 280 MM SMCL3
 REMARK 290
 REMARK 290 CRYSTALLOGRAPHIC SYMMETRY
 REMARK 290 SYMMETRY OPERATORS FOR SPACE GROUP: P 1 21 1
 REMARK 290
 REMARK 290 SYMOP SYMMETRY
 REMARK 290 NNNMMM OPERATOR
 REMARK 290 1555 X, Y, Z
 REMARK 290 2555 -X, 1/2+Y, -Z
 REMARK 290
 REMARK 290 WHERE NNN -> OPERATOR NUMBER
 REMARK 290 MMM -> TRANSLATION VECTOR
 REMARK 290
 REMARK 290 CRYSTALLOGRAPHIC SYMMETRY TRANSFORMATIONS
 REMARK 290 THE FOLLOWING TRANSFORMATIONS OPERATE ON THE ATOM/HETATM
 REMARK 290 RECORDS IN THIS ENTRY TO PRODUCE CRYSTALLOGRAPHICALLY
 REMARK 290 RELATED MOLECULES.
 REMARK 290 SMTRY1 1 1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 1 0.000000 1.000000 0.000000 0.000000
 REMARK 290 SMTRY3 1 0.000000 0.000000 1.000000 0.000000
 REMARK 290 SMTRY1 2 -1.000000 0.000000 0.000000 0.000000
 REMARK 290 SMTRY2 2 0.000000 1.000000 0.000000 43.76300
 REMARK 290 SMTRY3 2 0.000000 0.000000 -1.000000 0.000000
 REMARK 290
 REMARK 290 REMARK: NULL
 REMARK 300
 REMARK 300 BIOMOLECULE: 1, 2
 REMARK 300 THIS ENTRY CONTAINS THE CRYSTALLOGRAPHIC ASYMMETRIC UNIT
 REMARK 300 WHICH CONSISTS OF 4 CHAIN(S). SEE REMARK 350 FOR
 REMARK 300 INFORMATION ON GENERATING THE BIOLOGICAL MOLECULE(S).
 REMARK 350
 REMARK 350 GENERATING THE BIOMOLECULE
 REMARK 350 COORDINATES FOR A COMPLETE MULTIMER REPRESENTING THE KNOWN
 REMARK 350 BIOLOGICALLY SIGNIFICANT OLIGOMERIZATION STATE OF THE
 REMARK 350 MOLECULE CAN BE GENERATED BY APPLYING BIOMT TRANSFORMATIONS
 REMARK 350 GIVEN BELOW. BOTH NON-CRYSTALLOGRAPHIC AND
 REMARK 350 CRYSTALLOGRAPHIC OPERATIONS ARE GIVEN.
 REMARK 350
 REMARK 350 BIOMOLECULE: 1
 REMARK 350 APPLY THE FOLLOWING TO CHAINS: A, B
 REMARK 350 BIOMT1 1 1.000000 0.000000 0.000000 0.000000
 REMARK 350 BIOMT2 1 0.000000 1.000000 0.000000 0.000000
 REMARK 350 BIOMT3 1 0.000000 0.000000 1.000000 0.000000
 REMARK 350 BIOMOLECULE: 2
 REMARK 350 APPLY THE FOLLOWING TO CHAINS: C, D
 REMARK 350 BIOMT1 2 1.000000 0.000000 0.000000 0.000000
 REMARK 350 BIOMT2 2 0.000000 1.000000 0.000000 0.000000

REMARK 350 BIOMT3 2 0.000000 0.000000 1.000000 0.000000

REMARK 465

REMARK 465 MISSING RESIDUES

REMARK 465 THE FOLLOWING RESIDUES WERE NOT LOCATED IN THE

REMARK 465 EXPERIMENT. (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN

REMARK 465 IDENTIFIER; SSSEQ=SEQUENCE NUMBER; I=INSERTION CODE.)

REMARK 465

REMARK 465 M RES C SSSEQI

REMARK 465 GLU A 1

REMARK 465 GLY A 2

REMARK 465 ILE A 3

REMARK 465 GLU A 134

REMARK 465 THR A 135

REMARK 465 SER A 136

REMARK 465 VAL A 140

REMARK 465 SER A 141

REMARK 465 GLU B 201

REMARK 465 GLU C 401

REMARK 465 GLY C 402

REMARK 465 ILE C 403

REMARK 465 CYS C 404

REMARK 465 ARG C 405

REMARK 465 ASN C 406

REMARK 465 ARG C 407

REMARK 465 VAL C 408

REMARK 465 VAL C 540

REMARK 465 SER C 541

REMARK 465 GLU D 601

REMARK 465 GLY D 602

REMARK 465 ILE D 603

REMARK 465 CYS D 604

REMARK 465 ARG D 605

REMARK 465 ASN D 606

REMARK 465 ARG D 607

REMARK 465 VAL D 608

REMARK 465 SER D 733

REMARK 465 GLU D 734

REMARK 465 THR D 735

REMARK 465 SER D 736

REMARK 465 ASP D 737

REMARK 465 CYS D 738

REMARK 465 VAL D 739

REMARK 465 VAL D 740

REMARK 465 SER D 741

REMARK 470

REMARK 470 MISSING ATOM

REMARK 470 THE FOLLOWING RESIDUES HAVE MISSING ATOMS (M=MODEL NUMBER;

REMARK 470 RES=RESIDUE NAME; C=CHAIN IDENTIFIER; SSEQ=SEQUENCE NUMBER;

REMARK 470 I=INSERTION CODE):

REMARK 470 M RES CSSEQI ATOMS

REMARK 470 ARG A 5 CG CD NE CZ NH1 NH2

REMARK 470 ARG A 7 CG CD NE CZ NH1 NH2

REMARK 470 ASN A 10 CG OD1 ND2

REMARK 470 GLU B 292 CG CD OE1 OE2

REMARK 470 ASN B 293 CG OD1 ND2

REMARK 470 SER B 294 OG

REMARK 470 SER B 295 OG

REMARK 470 LYS B 296 CG CD CE NZ

REMARK 470 ASP B 297 CG OD1 OD2

REMARK 470	LEU B 298	CG	CD1	CD2				
REMARK 470	LYS B 299	CG	CD	CE	NZ			
REMARK 470	LYS B 300	CG	CD	CE	NZ			
REMARK 470	SER B 301	OG						
REMARK 470	PHE B 302	CG	CD1	CD2	CE1	CE2	CZ	
REMARK 470	LYS B 303	CG	CD	CE	NZ			
REMARK 470	SER B 341	OG						
REMARK 470	ASN C 410	CG	OD1	ND2				
REMARK 470	LYS C 413	CG	CD	CE	NZ			
REMARK 470	LYS C 491	CG	CD	CE	NZ			
REMARK 470	GLU C 492	CG	CD	OE1	OE2			
REMARK 470	ASN C 493	CG	OD1	ND2				
REMARK 470	SER C 494	OG						
REMARK 470	SER C 495	OG						
REMARK 470	LYS C 496	CG	CD	CE	NZ			
REMARK 470	ASP C 497	CG	OD1	OD2				
REMARK 470	LEU C 498	CG	CD1	CD2				
REMARK 470	LYS C 499	CG	CD	CE	NZ			
REMARK 470	LYS C 500	CG	CD	CE	NZ			
REMARK 470	SER C 501	OG						
REMARK 470	PHE C 502	CG	CD1	CD2	CE1	CE2	CZ	
REMARK 470	LYS D 696	CG	CD	CE	NZ			
REMARK 470	LYS D 699	CG	CD	CE	NZ			
REMARK 470	LYS D 700	CG	CD	CE	NZ			
REMARK 470	SER D 701	OG						
REMARK 470	PHE D 702	CG	CD1	CD2	CE1	CE2	CZ	
REMARK 470	LYS D 703	CG	CD	CE	NZ			
REMARK 500								
REMARK 500	GEOMETRY AND STEREOCHEMISTRY							
REMARK 500	SUBTOPIC: CLOSE CONTACTS IN SAME ASYMMETRIC UNIT							
REMARK 500								
REMARK 500	THE FOLLOWING ATOMS ARE IN CLOSE CONTACT.							
REMARK 500								
REMARK 500	ATM1	RES C	SSEQI	ATM2	RES C	SSEQI		
REMARK 500	SM	SM C	801	O	HOH	946		1.92
REMARK 500								
REMARK 500	GEOMETRY AND STEREOCHEMISTRY							
REMARK 500	SUBTOPIC: CLOSE CONTACTS							
REMARK 500								
REMARK 500	THE FOLLOWING ATOMS THAT ARE RELATED BY CRYSTALLOGRAPHIC							
REMARK 500	SYMMETRY ARE IN CLOSE CONTACT. AN ATOM LOCATED WITHIN 0.15							
REMARK 500	ANGSTROMS OF A SYMMETRY RELATED ATOM IS ASSUMED TO BE ON A							
REMARK 500	SPECIAL POSITION AND IS, THEREFORE, LISTED IN REMARK 375							
REMARK 500	INSTEAD OF REMARK 500. ATOMS WITH NON-BLANK ALTERNATE							
REMARK 500	LOCATION INDICATORS ARE NOT INCLUDED IN THE CALCULATIONS.							
REMARK 500								
REMARK 500	DISTANCE CUTOFF:							
REMARK 500	2.2 ANGSTROMS FOR CONTACTS NOT INVOLVING HYDROGEN ATOMS							
REMARK 500	1.6 ANGSTROMS FOR CONTACTS INVOLVING HYDROGEN ATOMS							
REMARK 500								
REMARK 500	ATM1	RES C	SSEQI	ATM2	RES C	SSEQI	SSYMP	DISTANCE
REMARK 500	OE1	GLU D	713	SM	SM B	803	2645	2.12
REMARK 500	OE2	GLU A	88	SM	SM C	801	2656	2.17
REMARK 500								
REMARK 500	GEOMETRY AND STEREOCHEMISTRY							
REMARK 500	SUBTOPIC: COVALENT BOND LENGTHS							
REMARK 500								
REMARK 500	THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES							
REMARK 500	HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE							

REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
 REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
 REMARK 500
 REMARK 500 STANDARD TABLE:
 REMARK 500 FORMAT: (10X,I3,1X,2(A3,1X,A1,I4,A1,1X,A4,3X),F6.3)
 REMARK 500
 REMARK 500 EXPECTED VALUES: ENGH AND HUBER, 1991
 REMARK 500

REMARK 500	M	RES	CSSEQI	ATM1	RES	CSSEQI	ATM2	DEVIATION
REMARK 500	PRO	A	23	CG	PRO	A	23	CB 0.046
REMARK 500	MET	A	48	CE	MET	A	48	SD -0.081
REMARK 500	MET	C	448	SD	MET	C	448	CG 0.040
REMARK 500	PRO	C	512	CG	PRO	C	512	CB 0.058

 REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: COVALENT BOND ANGLES
 REMARK 500
 REMARK 500 THE STEREOCHEMICAL PARAMETERS OF THE FOLLOWING RESIDUES
 REMARK 500 HAVE VALUES WHICH DEVIATE FROM EXPECTED VALUES BY MORE
 REMARK 500 THAN 6*RMSD (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN
 REMARK 500 IDENTIFIER; SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
 REMARK 500
 REMARK 500 STANDARD TABLE:
 REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,3(1X,A4,2X),12X,F5.1)
 REMARK 500
 REMARK 500 EXPECTED VALUES: ENGH AND HUBER, 1991
 REMARK 500

REMARK 500	M	RES	CSSEQI	ATM1	ATM2	ATM3	
REMARK 500	THR	A	111	N	-	CA - C	ANGL. DEV. = -7.7 DEGREES
REMARK 500	ARG	A	117	N	-	CA - C	ANGL. DEV. = -7.7 DEGREES
REMARK 500	PRO	B	234	N	-	CA - C	ANGL. DEV. = 10.2 DEGREES
REMARK 500	ILE	B	245	N	-	CA - C	ANGL. DEV. = 8.5 DEGREES
REMARK 500	ARG	B	317	N	-	CA - C	ANGL. DEV. = -8.0 DEGREES
REMARK 500	LYS	C	413	N	-	CA - C	ANGL. DEV. = -8.0 DEGREES
REMARK 500	ASP	C	414	N	-	CA - C	ANGL. DEV. = -8.4 DEGREES
REMARK 500	ASP	C	437	N	-	CA - C	ANGL. DEV. = 7.6 DEGREES
REMARK 500	TRP	C	444	N	-	CA - C	ANGL. DEV. = 10.9 DEGREES
REMARK 500	ILE	C	445	N	-	CA - C	ANGL. DEV. = 7.2 DEGREES
REMARK 500	ASP	C	528	N	-	CA - C	ANGL. DEV. = 11.9 DEGREES
REMARK 500	VAL	C	530	N	-	CA - C	ANGL. DEV. = 8.9 DEGREES
REMARK 500	THR	D	711	N	-	CA - C	ANGL. DEV. = -8.6 DEGREES
REMARK 500	ARG	D	717	N	-	CA - C	ANGL. DEV. = -8.1 DEGREES

 REMARK 500
 REMARK 500 GEOMETRY AND STEREOCHEMISTRY
 REMARK 500 SUBTOPIC: TORSION ANGLES
 REMARK 500
 REMARK 500 TORSION ANGLES OUTSIDE THE EXPECTED RAMACHANDRAN REGIONS:
 REMARK 500 (M=MODEL NUMBER; RES=RESIDUE NAME; C=CHAIN IDENTIFIER;
 REMARK 500 SSEQ=SEQUENCE NUMBER; I=INSERTION CODE).
 REMARK 500
 REMARK 500 STANDARD TABLE:
 REMARK 500 FORMAT: (10X,I3,1X,A3,1X,A1,I4,A1,4X,F7.2,3X,F7.2)
 REMARK 500

REMARK 500	M	RES	CSSEQI	PSI	PHI
REMARK 500	SER	A	101	104.88	120.52
REMARK 500	PHE	A	102	78.79	-100.99
REMARK 500	PHE	B	302	50.55	-96.61
REMARK 500	PHE	C	502	54.70	-95.94
REMARK 500	ASP	C	528	25.52	-113.66

Table 4

REMARK	500	VAL C	530		33.44	113.93		
REMARK	500	ILE D	645		61.98	-60.00		
DBREF	1EXZ A	1	141	SWS	P21583	SCF_HUMAN	26	166
DBREF	1EXZ B	201	341	SWS	P21583	SCF_HUMAN	26	166
DBREF	1EXZ C	401	541	SWS	P21583	SCF_HUMAN	26	166
DBREF	1EXZ D	601	741	SWS	P21583	SCF_HUMAN	26	166
SEQRES	1 A	141	GLU GLY ILE CYS ARG ASN ARG VAL THR ASN ASN VAL LYS					
SEQRES	2 A	141	ASP VAL THR LYS LEU VAL ALA ASN LEU PRO LYS ASP TYR					
SEQRES	3 A	141	MET ILE THR LEU LYS TYR VAL PRO GLY MET ASP VAL LEU					
SEQRES	4 A	141	PRO SER HIS CYS TRP ILE SER GLU MET VAL VAL GLN LEU					
SEQRES	5 A	141	SER ASP SER LEU THR ASP LEU LEU ASP LYS PHE SER ASN					
SEQRES	6 A	141	ILE SER GLU GLY LEU SER ASN TYR SER ILE ILE ASP LYS					
SEQRES	7 A	141	LEU VAL ASN ILE VAL ASP ASP LEU VAL GLU CYS VAL LYS					
SEQRES	8 A	141	GLU ASN SER SER LYS ASP LEU LYS LYS SER PHE LYS SER					
SEQRES	9 A	141	PRO GLU PRO ARG LEU PHE THR PRO GLU GLU PHE PHE ARG					
SEQRES	10 A	141	ILE PHE ASN ARG SER ILE ASP ALA PHE LYS ASP PHE VAL					
SEQRES	11 A	141	VAL ALA SER GLU THR SER ASP CYS VAL VAL SER					
SEQRES	1 B	141	GLU GLY ILE CYS ARG ASN ARG VAL THR ASN ASN VAL LYS					
SEQRES	2 B	141	ASP VAL THR LYS LEU VAL ALA ASN LEU PRO LYS ASP TYR					
SEQRES	3 B	141	MET ILE THR LEU LYS TYR VAL PRO GLY MET ASP VAL LEU					
SEQRES	4 B	141	PRO SER HIS CYS TRP ILE SER GLU MET VAL VAL GLN LEU					
SEQRES	5 B	141	SER ASP SER LEU THR ASP LEU LEU ASP LYS PHE SER ASN					
SEQRES	6 B	141	ILE SER GLU GLY LEU SER ASN TYR SER ILE ILE ASP LYS					
SEQRES	7 B	141	LEU VAL ASN ILE VAL ASP ASP LEU VAL GLU CYS VAL LYS					
SEQRES	8 B	141	GLU ASN SER SER LYS ASP LEU LYS LYS SER PHE LYS SER					
SEQRES	9 B	141	PRO GLU PRO ARG LEU PHE THR PRO GLU GLU PHE PHE ARG					
SEQRES	10 B	141	ILE PHE ASN ARG SER ILE ASP ALA PHE LYS ASP PHE VAL					
SEQRES	11 B	141	VAL ALA SER GLU THR SER ASP CYS VAL VAL SER					
SEQRES	1 C	141	GLU GLY ILE CYS ARG ASN ARG VAL THR ASN ASN VAL LYS					
SEQRES	2 C	141	ASP VAL THR LYS LEU VAL ALA ASN LEU PRO LYS ASP TYR					
SEQRES	3 C	141	MET ILE THR LEU LYS TYR VAL PRO GLY MET ASP VAL LEU					
SEQRES	4 C	141	PRO SER HIS CYS TRP ILE SER GLU MET VAL VAL GLN LEU					
SEQRES	5 C	141	SER ASP SER LEU THR ASP LEU LEU ASP LYS PHE SER ASN					
SEQRES	6 C	141	ILE SER GLU GLY LEU SER ASN TYR SER ILE ILE ASP LYS					
SEQRES	7 C	141	LEU VAL ASN ILE VAL ASP ASP LEU VAL GLU CYS VAL LYS					
SEQRES	8 C	141	GLU ASN SER SER LYS ASP LEU LYS LYS SER PHE LYS SER					
SEQRES	9 C	141	PRO GLU PRO ARG LEU PHE THR PRO GLU GLU PHE PHE ARG					
SEQRES	10 C	141	ILE PHE ASN ARG SER ILE ASP ALA PHE LYS ASP PHE VAL					
SEQRES	11 C	141	VAL ALA SER GLU THR SER ASP CYS VAL VAL SER					
SEQRES	1 D	141	GLU GLY ILE CYS ARG ASN ARG VAL THR ASN ASN VAL LYS					
SEQRES	2 D	141	ASP VAL THR LYS LEU VAL ALA ASN LEU PRO LYS ASP TYR					
SEQRES	3 D	141	MET ILE THR LEU LYS TYR VAL PRO GLY MET ASP VAL LEU					
SEQRES	4 D	141	PRO SER HIS CYS TRP ILE SER GLU MET VAL VAL GLN LEU					
SEQRES	5 D	141	SER ASP SER LEU THR ASP LEU LEU ASP LYS PHE SER ASN					
SEQRES	6 D	141	ILE SER GLU GLY LEU SER ASN TYR SER ILE ILE ASP LYS					
SEQRES	7 D	141	LEU VAL ASN ILE VAL ASP ASP LEU VAL GLU CYS VAL LYS					
SEQRES	8 D	141	GLU ASN SER SER LYS ASP LEU LYS LYS SER PHE LYS SER					
SEQRES	9 D	141	PRO GLU PRO ARG LEU PHE THR PRO GLU GLU PHE PHE ARG					
SEQRES	10 D	141	ILE PHE ASN ARG SER ILE ASP ALA PHE LYS ASP PHE VAL					
SEQRES	11 D	141	VAL ALA SER GLU THR SER ASP CYS VAL VAL SER					
HET	SM	C 801	1					
HET	SM	802	1					
HET	SM	B 803	1					
HET	SM	804	1					
HET	CA	C 805	1					
HET	CA	A 806	1					
HET	TRS	807	8					
HETNAM		SM SAMARIUM (III) ION						
HETNAM		CA CALCIUM ION						

HETNAM TRS 2-AMINO-2-HYDROXYMETHYL-PROPANE-1, 3-DIOL
 HETSYN TRS TRIS BUFFER
 FORMUL 5 SM 4 (SM1 3+)
 FORMUL 9 CA 2 (CA1 2+)
 FORMUL 11 TRS C4 H12 N1 O3 1+
 FORMUL 12 HOH *132 (H2 O1)

HELIX	1	1	ASN A	11	ASN A	21	1													11
HELIX	2	2	PRO A	40	CYS A	43	5													4
HELIX	3	3	TRP A	44	ASP A	61	1													18
HELIX	4	4	SER A	71	ASN A	93	1													23
HELIX	5	5	THR A	111	ASP A	128	1													18
HELIX	6	6	ASN B	211	ASN B	221	1													11
HELIX	7	7	PRO B	240	CYS B	243	5													4
HELIX	8	8	TRP B	244	ASP B	261	1													18
HELIX	9	9	SER B	271	VAL B	290	1													20
HELIX	10	10	THR B	311	ALA B	325	1													15
HELIX	11	11	LYS C	413	ASN C	421	1													9
HELIX	12	12	PRO C	440	CYS C	443	5													4
HELIX	13	13	TRP C	444	ASP C	461	1													18
HELIX	14	14	SER C	471	LYS C	491	1													21
HELIX	15	15	THR C	511	ALA C	525	1													15
HELIX	16	16	VAL D	612	ASN D	621	1													10
HELIX	17	17	ILE D	645	ASP D	661	1													17
HELIX	18	18	SER D	671	ASN D	693	1													23
HELIX	19	19	THR D	711	LYS D	727	1													17

SHEET	1	A 2	ILE A	28	TYR A	32	0														
SHEET	2	A 2	GLU A	106	PHE A	110	-1	O	GLU A	106	N	TYR A	32								
SHEET	1	B 2	ILE B	228	LYS B	231	0														
SHEET	2	B 2	PRO B	307	PHE B	310	-1	O	ARG B	308	N	LEU B	230								
SHEET	1	C 2	ILE C	428	LYS C	431	0														
SHEET	2	C 2	PRO C	507	PHE C	510	-1	O	ARG C	508	N	LEU C	430								
SHEET	1	D 2	ILE D	628	LYS D	631	0														
SHEET	2	D 2	PRO D	707	PHE D	710	-1	N	ARG D	708	O	LEU D	630								
SSBOND	1	CYS A		4	CYS A		89														
SSBOND	2	CYS A		43	CYS A		138														
SSBOND	3	CYS B		204	CYS B		289														
SSBOND	4	CYS B		243	CYS B		338														
SSBOND	5	CYS C		443	CYS C		538														
LINK		SM		SM B	803					OD2	ASP B	337									
CRYST1		36.154		87.526		79.434		90.00		97.76		90.00	P	1		21		1			8
ORIGX1		1.000000		0.000000		0.000000		0.000000				0.000000									
ORIGX2		0.000000		1.000000		0.000000		0.000000				0.000000									
ORIGX3		0.000000		0.000000		1.000000		0.000000				0.000000									
SCALE1		0.027659		0.000000		0.003769		0.000000				0.000000									
SCALE2		0.000000		0.011425		0.000000		0.000000				0.000000									
SCALE3		0.000000		0.000000		0.012705		0.000000				0.000000									

Table 4

ATOM	1	N	CYS	A	4	24.179	55.019	52.849	1.00	86.63	N
ATOM	2	CA	CYS	A	4	23.377	56.276	52.833	1.00	86.89	C
ATOM	3	C	CYS	A	4	21.900	55.949	52.656	1.00	88.25	C
ATOM	4	O	CYS	A	4	21.366	56.071	51.554	1.00	88.58	O
ATOM	5	CB	CYS	A	4	23.837	57.181	51.687	1.00	84.65	C
ATOM	6	SG	CYS	A	4	25.616	57.570	51.706	1.00	80.96	S
ATOM	7	N	ARG	A	5	21.259	55.533	53.748	1.00	89.34	N
ATOM	8	CA	ARG	A	5	19.840	55.170	53.770	1.00	90.15	C
ATOM	9	C	ARG	A	5	19.129	55.410	52.443	1.00	90.43	C
ATOM	10	O	ARG	A	5	18.685	54.466	51.786	1.00	90.05	O
ATOM	11	CB	ARG	A	5	19.131	55.932	54.884	1.00	90.62	C
ATOM	12	N	ASN	A	6	19.019	56.678	52.059	1.00	90.83	N
ATOM	13	CA	ASN	A	6	18.372	57.045	50.806	1.00	91.40	C
ATOM	14	C	ASN	A	6	19.348	56.829	49.647	1.00	91.43	C
ATOM	15	O	ASN	A	6	20.345	57.544	49.516	1.00	90.94	O
ATOM	16	CB	ASN	A	6	17.927	58.509	50.851	1.00	91.94	C
ATOM	17	CG	ASN	A	6	16.999	58.870	49.709	1.00	92.27	C
ATOM	18	OD1	ASN	A	6	17.376	58.797	48.541	1.00	92.40	O
ATOM	19	ND2	ASN	A	6	15.773	59.259	50.043	1.00	92.61	N
ATOM	20	N	ARG	A	7	19.051	55.832	48.815	1.00	91.42	N
ATOM	21	CA	ARG	A	7	19.894	55.494	47.672	1.00	90.97	C
ATOM	22	C	ARG	A	7	19.230	55.836	46.340	1.00	90.59	C
ATOM	23	O	ARG	A	7	19.817	55.635	45.278	1.00	91.32	O
ATOM	24	CB	ARG	A	7	20.247	54.006	47.712	1.00	91.02	C
ATOM	25	N	VAL	A	8	18.005	56.349	46.401	1.00	89.85	N
ATOM	26	CA	VAL	A	8	17.257	56.729	45.203	1.00	88.72	C
ATOM	27	C	VAL	A	8	16.890	55.511	44.345	1.00	87.92	C
ATOM	28	O	VAL	A	8	16.539	55.648	43.170	1.00	87.06	O
ATOM	29	CB	VAL	A	8	18.062	57.740	44.338	1.00	88.56	C
ATOM	30	CG1	VAL	A	8	17.170	58.340	43.261	1.00	88.77	C
ATOM	31	CG2	VAL	A	8	18.636	58.840	45.219	1.00	88.36	C
ATOM	32	N	THR	A	9	16.964	54.325	44.944	1.00	86.61	N
ATOM	33	CA	THR	A	9	16.635	53.081	44.249	1.00	85.51	C
ATOM	34	C	THR	A	9	17.126	53.090	42.802	1.00	84.43	C
ATOM	35	O	THR	A	9	16.415	53.524	41.895	1.00	84.69	O
ATOM	36	CB	THR	A	9	15.108	52.823	44.248	1.00	85.48	C
ATOM	37	OG1	THR	A	9	14.629	52.757	45.598	1.00	85.34	O
ATOM	38	CG2	THR	A	9	14.788	51.510	43.546	1.00	85.22	C
ATOM	39	N	ASN	A	10	18.345	52.605	42.596	1.00	83.25	N
ATOM	40	CA	ASN	A	10	18.935	52.552	41.265	1.00	81.58	C
ATOM	41	C	ASN	A	10	18.944	51.119	40.754	1.00	80.41	C
ATOM	42	O	ASN	A	10	19.903	50.696	40.108	1.00	80.59	O
ATOM	43	CB	ASN	A	10	20.356	53.091	41.308	1.00	81.52	C
ATOM	44	N	ASN	A	11	17.878	50.377	41.047	1.00	78.05	N
ATOM	45	CA	ASN	A	11	17.777	48.985	40.622	1.00	75.63	C
ATOM	46	C	ASN	A	11	18.070	48.776	39.142	1.00	73.02	C
ATOM	47	O	ASN	A	11	17.862	49.669	38.317	1.00	71.57	O
ATOM	48	CB	ASN	A	11	16.397	48.417	40.958	1.00	77.49	C
ATOM	49	CG	ASN	A	11	16.269	48.032	42.418	1.00	78.14	C
ATOM	50	OD1	ASN	A	11	17.084	47.269	42.944	1.00	78.66	O
ATOM	51	ND2	ASN	A	11	15.240	48.552	43.080	1.00	78.86	N
ATOM	52	N	VAL	A	12	18.549	47.576	38.823	1.00	70.35	N
ATOM	53	CA	VAL	A	12	18.911	47.209	37.460	1.00	66.91	C
ATOM	54	C	VAL	A	12	17.720	47.300	36.511	1.00	63.29	C
ATOM	55	O	VAL	A	12	17.827	46.969	35.334	1.00	63.69	O
ATOM	56	CB	VAL	A	12	19.492	45.777	37.411	1.00	67.69	C
ATOM	57	CG1	VAL	A	12	20.358	45.608	36.170	1.00	68.11	C
ATOM	58	CG2	VAL	A	12	20.306	45.503	38.665	1.00	68.37	C
ATOM	59	N	LYS	A	13	16.584	47.747	37.030	1.00	58.49	N
ATOM	60	CA	LYS	A	13	15.386	47.899	36.220	1.00	55.37	C
ATOM	61	C	LYS	A	13	15.729	48.723	34.978	1.00	52.98	C

ATOM	62	O	LYS	A	13	15.588	48.259	33.843	1.00	52.47	O
ATOM	63	CB	LYS	A	13	14.299	48.609	37.036	1.00	56.53	C
ATOM	64	CG	LYS	A	13	14.811	49.848	37.769	1.00	58.27	C
ATOM	65	CD	LYS	A	13	13.702	50.667	38.398	1.00	59.14	C
ATOM	66	CE	LYS	A	13	14.263	51.947	39.006	1.00	60.60	C
ATOM	67	NZ	LYS	A	13	13.191	52.883	39.456	1.00	60.73	N
ATOM	68	N	ASP	A	14	16.192	49.949	35.205	1.00	49.63	N
ATOM	69	CA	ASP	A	14	16.558	50.841	34.117	1.00	46.02	C
ATOM	70	C	ASP	A	14	17.959	50.521	33.575	1.00	40.96	C
ATOM	71	O	ASP	A	14	18.231	50.731	32.394	1.00	38.69	O
ATOM	72	CB	ASP	A	14	16.477	52.294	34.591	1.00	50.58	C
ATOM	73	CG	ASP	A	14	17.233	52.528	35.886	1.00	56.43	C
ATOM	74	OD1	ASP	A	14	16.804	52.008	36.943	1.00	59.62	O
ATOM	75	OD2	ASP	A	14	18.263	53.233	35.845	1.00	59.80	O
ATOM	76	N	VAL	A	15	18.832	50.004	34.437	1.00	34.36	N
ATOM	77	CA	VAL	A	15	20.187	49.638	34.033	1.00	32.14	C
ATOM	78	C	VAL	A	15	20.136	48.524	32.989	1.00	31.17	C
ATOM	79	O	VAL	A	15	20.816	48.581	31.961	1.00	29.80	O
ATOM	80	CB	VAL	A	15	21.036	49.157	35.241	1.00	29.72	C
ATOM	81	CG1	VAL	A	15	22.346	48.563	34.753	1.00	30.51	C
ATOM	82	CG2	VAL	A	15	21.316	50.312	36.176	1.00	24.91	C
ATOM	83	N	THR	A	16	19.312	47.518	33.259	1.00	31.37	N
ATOM	84	CA	THR	A	16	19.137	46.390	32.355	1.00	31.24	C
ATOM	85	C	THR	A	16	18.692	46.881	30.978	1.00	31.26	C
ATOM	86	O	THR	A	16	19.159	46.389	29.952	1.00	32.04	O
ATOM	87	CB	THR	A	16	18.091	45.408	32.919	1.00	33.12	C
ATOM	88	OG1	THR	A	16	18.636	44.757	34.072	1.00	30.67	O
ATOM	89	CG2	THR	A	16	17.705	44.364	31.875	1.00	33.49	C
ATOM	90	N	LYS	A	17	17.791	47.857	30.963	1.00	31.79	N
ATOM	91	CA	LYS	A	17	17.316	48.419	29.711	1.00	33.62	C
ATOM	92	C	LYS	A	17	18.479	49.133	29.017	1.00	32.83	C
ATOM	93	O	LYS	A	17	18.739	48.904	27.832	1.00	33.50	O
ATOM	94	CB	LYS	A	17	16.173	49.406	29.967	1.00	38.18	C
ATOM	95	CG	LYS	A	17	15.430	49.840	28.698	1.00	41.80	C
ATOM	96	CD	LYS	A	17	14.288	50.804	29.014	1.00	43.51	C
ATOM	97	CE	LYS	A	17	13.416	51.080	27.783	1.00	46.10	C
ATOM	98	NZ	LYS	A	17	14.145	51.735	26.648	1.00	45.83	N
ATOM	99	N	LEU	A	18	19.192	49.976	29.763	1.00	30.88	N
ATOM	100	CA	LEU	A	18	20.333	50.716	29.205	1.00	28.79	C
ATOM	101	C	LEU	A	18	21.328	49.767	28.545	1.00	25.72	C
ATOM	102	O	LEU	A	18	21.734	49.973	27.408	1.00	23.33	O
ATOM	103	CB	LEU	A	18	21.060	51.494	30.298	1.00	27.65	C
ATOM	104	CG	LEU	A	18	21.681	52.831	29.903	1.00	28.11	C
ATOM	105	CD1	LEU	A	18	22.621	53.255	31.012	1.00	27.08	C
ATOM	106	CD2	LEU	A	18	22.398	52.747	28.579	1.00	23.78	C
ATOM	107	N	VAL	A	19	21.722	48.731	29.278	1.00	26.84	N
ATOM	108	CA	VAL	A	19	22.661	47.740	28.765	1.00	25.57	C
ATOM	109	C	VAL	A	19	22.113	47.044	27.513	1.00	27.11	C
ATOM	110	O	VAL	A	19	22.869	46.674	26.612	1.00	27.07	O
ATOM	111	CB	VAL	A	19	22.987	46.691	29.855	1.00	26.55	C
ATOM	112	CG1	VAL	A	19	23.796	45.507	29.265	1.00	22.88	C
ATOM	113	CG2	VAL	A	19	23.775	47.355	30.960	1.00	23.60	C
ATOM	114	N	ALA	A	20	20.798	46.880	27.443	1.00	27.84	N
ATOM	115	CA	ALA	A	20	20.195	46.227	26.287	1.00	29.20	C
ATOM	116	C	ALA	A	20	20.309	47.120	25.050	1.00	30.00	C
ATOM	117	O	ALA	A	20	20.302	46.636	23.914	1.00	30.00	O
ATOM	118	CB	ALA	A	20	18.725	45.906	26.577	1.00	29.27	C
ATOM	119	N	ASN	A	21	20.436	48.424	25.276	1.00	28.74	N
ATOM	120	CA	ASN	A	21	20.527	49.375	24.179	1.00	28.64	C
ATOM	121	C	ASN	A	21	21.868	50.041	23.929	1.00	27.97	C
ATOM	122	O	ASN	A	21	21.957	50.999	23.159	1.00	30.28	O
ATOM	123	CB	ASN	A	21	19.433	50.424	24.331	1.00	30.91	C
ATOM	124	CG	ASN	A	21	18.088	49.889	23.918	1.00	34.80	C

Table 4

ATOM	125	OD1	ASN	A	21	17.787	49.800	22.721	1.00	34.75	O
ATOM	126	ND2	ASN	A	21	17.278	49.487	24.900	1.00	35.75	N
ATOM	127	N	LEU	A	22	22.910	49.541	24.579	1.00	26.09	N
ATOM	128	CA	LEU	A	22	24.259	50.055	24.359	1.00	24.16	C
ATOM	129	C	LEU	A	22	24.997	48.954	23.614	1.00	23.68	C
ATOM	130	O	LEU	A	22	24.936	47.802	24.002	1.00	25.86	O
ATOM	131	CB	LEU	A	22	24.970	50.339	25.677	1.00	21.67	C
ATOM	132	CG	LEU	A	22	24.581	51.606	26.436	1.00	23.31	C
ATOM	133	CD1	LEU	A	22	25.367	51.654	27.735	1.00	22.70	C
ATOM	134	CD2	LEU	A	22	24.863	52.849	25.576	1.00	22.30	C
ATOM	135	N	PRO	A	23	25.699	49.293	22.530	1.00	25.53	N
ATOM	136	CA	PRO	A	23	26.411	48.232	21.803	1.00	26.11	C
ATOM	137	C	PRO	A	23	27.359	47.413	22.679	1.00	27.55	C
ATOM	138	O	PRO	A	23	28.058	47.961	23.541	1.00	24.70	O
ATOM	139	CB	PRO	A	23	27.123	48.985	20.674	1.00	24.80	C
ATOM	140	CG	PRO	A	23	27.176	50.440	21.169	1.00	27.41	C
ATOM	141	CD	PRO	A	23	25.897	50.620	21.917	1.00	24.42	C
ATOM	142	N	LYS	A	24	27.371	46.099	22.458	1.00	27.34	N
ATOM	143	CA	LYS	A	24	28.220	45.195	23.242	1.00	30.02	C
ATOM	144	C	LYS	A	24	29.719	45.471	23.142	1.00	30.51	C
ATOM	145	O	LYS	A	24	30.450	45.308	24.121	1.00	30.43	O
ATOM	146	CB	LYS	A	24	27.961	43.742	22.840	1.00	30.74	C
ATOM	147	CG	LYS	A	24	26.542	43.262	23.107	1.00	34.37	C
ATOM	148	CD	LYS	A	24	26.346	41.840	22.584	1.00	41.43	C
ATOM	149	CE	LYS	A	24	24.910	41.362	22.785	1.00	43.00	C
ATOM	150	NZ	LYS	A	24	24.527	41.438	24.225	1.00	47.05	N
ATOM	151	N	ASP	A	25	30.173	45.879	21.960	1.00	30.41	N
ATOM	152	CA	ASP	A	25	31.587	46.155	21.734	1.00	31.71	C
ATOM	153	C	ASP	A	25	31.951	47.631	21.953	1.00	33.42	C
ATOM	154	O	ASP	A	25	33.007	48.091	21.522	1.00	33.11	O
ATOM	155	CB	ASP	A	25	31.977	45.711	20.313	1.00	31.70	C
ATOM	156	CG	ASP	A	25	31.118	46.358	19.237	1.00	35.19	C
ATOM	157	OD1	ASP	A	25	30.109	47.007	19.581	1.00	36.20	O
ATOM	158	OD2	ASP	A	25	31.446	46.211	18.041	1.00	37.53	O
ATOM	159	N	TYR	A	26	31.075	48.372	22.622	1.00	33.64	N
ATOM	160	CA	TYR	A	26	31.342	49.782	22.895	1.00	34.35	C
ATOM	161	C	TYR	A	26	32.009	49.905	24.262	1.00	34.80	C
ATOM	162	O	TYR	A	26	31.402	49.628	25.297	1.00	35.59	O
ATOM	163	CB	TYR	A	26	30.045	50.588	22.879	1.00	33.06	C
ATOM	164	CG	TYR	A	26	30.249	52.049	23.176	1.00	34.30	C
ATOM	165	CD1	TYR	A	26	31.007	52.855	22.327	1.00	35.11	C
ATOM	166	CD2	TYR	A	26	29.677	52.631	24.306	1.00	33.42	C
ATOM	167	CE1	TYR	A	26	31.188	54.208	22.597	1.00	36.03	C
ATOM	168	CE2	TYR	A	26	29.847	53.974	24.585	1.00	35.98	C
ATOM	169	CZ	TYR	A	26	30.602	54.761	23.729	1.00	37.37	C
ATOM	170	OH	TYR	A	26	30.745	56.101	24.003	1.00	38.88	O
ATOM	171	N	MET	A	27	33.263	50.334	24.258	1.00	35.01	N
ATOM	172	CA	MET	A	27	34.022	50.467	25.483	1.00	35.27	C
ATOM	173	C	MET	A	27	33.797	51.783	26.227	1.00	33.91	C
ATOM	174	O	MET	A	27	33.930	52.866	25.661	1.00	35.37	O
ATOM	175	CB	MET	A	27	35.509	50.295	25.173	1.00	38.11	C
ATOM	176	CG	MET	A	27	35.827	48.994	24.473	1.00	40.65	C
ATOM	177	SD	MET	A	27	35.230	47.613	25.440	1.00	45.39	S
ATOM	178	CE	MET	A	27	36.529	47.464	26.649	1.00	44.54	C
ATOM	179	N	ILE	A	28	33.452	51.666	27.504	1.00	32.21	N
ATOM	180	CA	ILE	A	28	33.235	52.812	28.377	1.00	29.60	C
ATOM	181	C	ILE	A	28	34.472	52.920	29.264	1.00	28.54	C
ATOM	182	O	ILE	A	28	34.956	51.908	29.776	1.00	26.71	O
ATOM	183	CB	ILE	A	28	32.008	52.611	29.299	1.00	27.09	C
ATOM	184	CG1	ILE	A	28	30.735	52.462	28.467	1.00	22.92	C
ATOM	185	CG2	ILE	A	28	31.883	53.801	30.253	1.00	28.05	C
ATOM	186	CD1	ILE	A	28	29.551	51.907	29.255	1.00	19.41	C
ATOM	187	N	THR	A	29	34.986	54.134	29.439	1.00	27.86	N

Table 4

ATOM	188	CA	THR	A	29	36.168	54.339	30.274	1.00	30.19	C
ATOM	189	C	THR	A	29	35.818	54.633	31.728	1.00	27.73	C
ATOM	190	O	THR	A	29	34.914	55.412	32.022	1.00	26.96	O
ATOM	191	CB	THR	A	29	37.053	55.491	29.736	1.00	32.36	C
ATOM	192	OG1	THR	A	29	37.714	55.061	28.537	1.00	37.55	O
ATOM	193	CG2	THR	A	29	38.107	55.892	30.769	1.00	32.81	C
ATOM	194	N	LEU	A	30	36.548	53.998	32.635	1.00	26.14	N
ATOM	195	CA	LEU	A	30	36.332	54.181	34.061	1.00	27.37	C
ATOM	196	C	LEU	A	30	37.639	54.031	34.835	1.00	28.61	C
ATOM	197	O	LEU	A	30	38.371	53.054	34.666	1.00	27.18	O
ATOM	198	CB	LEU	A	30	35.320	53.153	34.584	1.00	24.35	C
ATOM	199	CG	LEU	A	30	35.225	53.000	36.107	1.00	24.14	C
ATOM	200	CD1	LEU	A	30	34.569	54.255	36.734	1.00	22.13	C
ATOM	201	CD2	LEU	A	30	34.428	51.746	36.437	1.00	21.25	C
ATOM	202	N	LYS	A	31	37.934	55.015	35.677	1.00	30.12	N
ATOM	203	CA	LYS	A	31	39.126	54.949	36.504	1.00	31.06	C
ATOM	204	C	LYS	A	31	38.734	54.049	37.662	1.00	31.36	C
ATOM	205	O	LYS	A	31	38.219	54.489	38.688	1.00	30.60	O
ATOM	206	CB	LYS	A	31	39.527	56.351	36.968	1.00	30.41	C
ATOM	207	CG	LYS	A	31	40.114	57.159	35.829	1.00	32.85	C
ATOM	208	CD	LYS	A	31	40.245	58.636	36.136	1.00	37.32	C
ATOM	209	CE	LYS	A	31	40.798	59.359	34.910	1.00	41.56	C
ATOM	210	NZ	LYS	A	31	40.802	60.837	35.049	1.00	48.16	N
ATOM	211	N	TYR	A	32	38.951	52.760	37.441	1.00	33.38	N
ATOM	212	CA	TYR	A	32	38.637	51.702	38.391	1.00	33.81	C
ATOM	213	C	TYR	A	32	39.514	51.758	39.638	1.00	34.38	C
ATOM	214	O	TYR	A	32	40.725	51.937	39.538	1.00	35.35	O
ATOM	215	CB	TYR	A	32	38.839	50.357	37.689	1.00	36.33	C
ATOM	216	CG	TYR	A	32	38.578	49.136	38.534	1.00	36.76	C
ATOM	217	CD1	TYR	A	32	37.278	48.761	38.858	1.00	36.76	C
ATOM	218	CD2	TYR	A	32	39.629	48.337	38.983	1.00	37.06	C
ATOM	219	CE1	TYR	A	32	37.021	47.620	39.606	1.00	39.37	C
ATOM	220	CE2	TYR	A	32	39.386	47.182	39.740	1.00	37.96	C
ATOM	221	CZ	TYR	A	32	38.075	46.833	40.046	1.00	39.51	C
ATOM	222	OH	TYR	A	32	37.804	45.715	40.798	1.00	39.29	O
ATOM	223	N	VAL	A	33	38.908	51.617	40.813	1.00	34.07	N
ATOM	224	CA	VAL	A	33	39.692	51.607	42.037	1.00	36.48	C
ATOM	225	C	VAL	A	33	40.079	50.159	42.291	1.00	39.60	C
ATOM	226	O	VAL	A	33	39.234	49.324	42.609	1.00	39.23	O
ATOM	227	CB	VAL	A	33	38.909	52.124	43.259	1.00	35.71	C
ATOM	228	CG1	VAL	A	33	39.733	51.913	44.518	1.00	35.41	C
ATOM	229	CG2	VAL	A	33	38.597	53.611	43.095	1.00	36.35	C
ATOM	230	N	PRO	A	34	41.367	49.837	42.130	1.00	42.06	N
ATOM	231	CA	PRO	A	34	41.817	48.463	42.357	1.00	43.30	C
ATOM	232	C	PRO	A	34	41.602	48.070	43.815	1.00	44.25	C
ATOM	233	O	PRO	A	34	41.793	48.885	44.719	1.00	45.62	O
ATOM	234	CB	PRO	A	34	43.290	48.515	41.953	1.00	44.82	C
ATOM	235	CG	PRO	A	34	43.685	49.927	42.293	1.00	46.23	C
ATOM	236	CD	PRO	A	34	42.498	50.730	41.812	1.00	43.18	C
ATOM	237	N	GLY	A	35	41.186	46.828	44.037	1.00	44.70	N
ATOM	238	CA	GLY	A	35	40.941	46.361	45.390	1.00	44.83	C
ATOM	239	C	GLY	A	35	39.453	46.290	45.676	1.00	45.03	C
ATOM	240	O	GLY	A	35	39.026	45.681	46.656	1.00	44.02	O
ATOM	241	N	MET	A	36	38.666	46.909	44.798	1.00	46.50	N
ATOM	242	CA	MET	A	36	37.212	46.942	44.929	1.00	47.66	C
ATOM	243	C	MET	A	36	36.600	45.553	45.023	1.00	48.06	C
ATOM	244	O	MET	A	36	35.488	45.393	45.521	1.00	47.40	O
ATOM	245	CB	MET	A	36	36.587	47.657	43.731	1.00	47.93	C
ATOM	246	CG	MET	A	36	35.075	47.720	43.805	1.00	50.30	C
ATOM	247	SD	MET	A	36	34.244	48.051	42.237	1.00	51.54	S
ATOM	248	CE	MET	A	36	32.603	47.354	42.593	1.00	48.10	C
ATOM	249	N	ASP	A	37	37.326	44.553	44.535	1.00	49.01	N
ATOM	250	CA	ASP	A	37	36.843	43.177	44.534	1.00	50.28	C

Table 4

ATOM	251	C	ASP	A	37	37.333	42.330	45.705	1.00	50.50	C
ATOM	252	O	ASP	A	37	37.091	41.123	45.737	1.00	51.60	O
ATOM	253	CB	ASP	A	37	37.235	42.506	43.215	1.00	51.52	C
ATOM	254	CG	ASP	A	37	38.739	42.529	42.968	1.00	53.79	C
ATOM	255	OD1	ASP	A	37	39.378	43.583	43.202	1.00	53.58	O
ATOM	256	OD2	ASP	A	37	39.283	41.492	42.524	1.00	54.54	O
ATOM	257	N	VAL	A	38	38.010	42.957	46.666	1.00	49.28	N
ATOM	258	CA	VAL	A	38	38.536	42.236	47.825	1.00	47.15	C
ATOM	259	C	VAL	A	38	38.533	43.060	49.106	1.00	46.60	C
ATOM	260	O	VAL	A	38	38.300	42.534	50.194	1.00	44.87	O
ATOM	261	CB	VAL	A	38	39.980	41.772	47.576	1.00	45.99	C
ATOM	262	CG1	VAL	A	38	39.992	40.604	46.617	1.00	47.70	C
ATOM	263	CG2	VAL	A	38	40.797	42.923	47.016	1.00	45.04	C
ATOM	264	N	LEU	A	39	38.811	44.350	48.977	1.00	45.27	N
ATOM	265	CA	LEU	A	39	38.844	45.226	50.136	1.00	45.37	C
ATOM	266	C	LEU	A	39	37.446	45.557	50.649	1.00	45.34	C
ATOM	267	O	LEU	A	39	36.455	45.427	49.928	1.00	43.74	O
ATOM	268	CB	LEU	A	39	39.559	46.532	49.786	1.00	45.66	C
ATOM	269	CG	LEU	A	39	41.085	46.576	49.709	1.00	47.47	C
ATOM	270	CD1	LEU	A	39	41.610	45.445	48.841	1.00	49.34	C
ATOM	271	CD2	LEU	A	39	41.513	47.931	49.150	1.00	45.50	C
ATOM	272	N	PRO	A	40	37.348	45.973	51.921	1.00	45.95	N
ATOM	273	CA	PRO	A	40	36.039	46.324	52.471	1.00	45.59	C
ATOM	274	C	PRO	A	40	35.600	47.603	51.763	1.00	44.61	C
ATOM	275	O	PRO	A	40	36.436	48.364	51.274	1.00	42.94	O
ATOM	276	CB	PRO	A	40	36.331	46.528	53.954	1.00	47.00	C
ATOM	277	CG	PRO	A	40	37.764	46.999	53.946	1.00	48.81	C
ATOM	278	CD	PRO	A	40	38.395	46.070	52.951	1.00	45.63	C
ATOM	279	N	SER	A	41	34.294	47.831	51.708	1.00	44.09	N
ATOM	280	CA	SER	A	41	33.745	48.988	51.019	1.00	44.85	C
ATOM	281	C	SER	A	41	34.251	50.349	51.471	1.00	44.18	C
ATOM	282	O	SER	A	41	34.469	51.233	50.637	1.00	44.01	O
ATOM	283	CB	SER	A	41	32.221	48.971	51.109	1.00	46.19	C
ATOM	284	OG	SER	A	41	31.801	49.153	52.447	1.00	50.69	O
ATOM	285	N	HIS	A	42	34.450	50.528	52.774	1.00	43.90	N
ATOM	286	CA	HIS	A	42	34.907	51.824	53.275	1.00	43.39	C
ATOM	287	C	HIS	A	42	36.261	52.205	52.717	1.00	41.97	C
ATOM	288	O	HIS	A	42	36.696	53.344	52.870	1.00	41.77	O
ATOM	289	CB	HIS	A	42	34.969	51.846	54.809	1.00	45.03	C
ATOM	290	CG	HIS	A	42	36.162	51.148	55.383	1.00	46.34	C
ATOM	291	ND1	HIS	A	42	36.161	49.806	55.699	1.00	47.87	N
ATOM	292	CD2	HIS	A	42	37.399	51.607	55.689	1.00	47.30	C
ATOM	293	CE1	HIS	A	42	37.346	49.468	56.176	1.00	48.29	C
ATOM	294	NE2	HIS	A	42	38.116	50.542	56.180	1.00	48.92	N
ATOM	295	N	CYS	A	43	36.919	51.252	52.065	1.00	39.35	N
ATOM	296	CA	CYS	A	43	38.234	51.492	51.487	1.00	39.79	C
ATOM	297	C	CYS	A	43	38.171	51.960	50.045	1.00	37.47	C
ATOM	298	O	CYS	A	43	39.160	52.448	49.513	1.00	34.98	O
ATOM	299	CB	CYS	A	43	39.090	50.221	51.533	1.00	45.85	C
ATOM	300	SG	CYS	A	43	39.570	49.651	53.193	1.00	51.16	S
ATOM	301	N	TRP	A	44	37.016	51.823	49.404	1.00	34.72	N
ATOM	302	CA	TRP	A	44	36.931	52.221	48.006	1.00	32.06	C
ATOM	303	C	TRP	A	44	35.641	52.893	47.534	1.00	30.52	C
ATOM	304	O	TRP	A	44	35.642	53.590	46.521	1.00	27.80	O
ATOM	305	CB	TRP	A	44	37.188	50.994	47.127	1.00	31.65	C
ATOM	306	CG	TRP	A	44	36.299	49.824	47.460	1.00	29.05	C
ATOM	307	CD1	TRP	A	44	36.620	48.743	48.226	1.00	32.56	C
ATOM	308	CD2	TRP	A	44	34.948	49.624	47.030	1.00	27.71	C
ATOM	309	NE1	TRP	A	44	35.552	47.874	48.298	1.00	32.12	N
ATOM	310	CE2	TRP	A	44	34.513	48.392	47.572	1.00	28.95	C
ATOM	311	CE3	TRP	A	44	34.061	50.366	46.237	1.00	29.91	C
ATOM	312	CZ2	TRP	A	44	33.230	47.883	47.348	1.00	29.41	C
ATOM	313	CZ3	TRP	A	44	32.781	49.863	46.010	1.00	30.10	C

ATOM	314	CH2	TRP	A	44	32.378	48.629	46.565	1.00	29.97	C
ATOM	315	N	ILE	A	45	34.552	52.693	48.264	1.00	31.20	N
ATOM	316	CA	ILE	A	45	33.268	53.236	47.850	1.00	32.95	C
ATOM	317	C	ILE	A	45	33.283	54.722	47.516	1.00	34.02	C
ATOM	318	O	ILE	A	45	32.658	55.144	46.543	1.00	33.17	O
ATOM	319	CB	ILE	A	45	32.178	52.922	48.903	1.00	35.47	C
ATOM	320	CG1	ILE	A	45	30.810	52.896	48.221	1.00	37.51	C
ATOM	321	CG2	ILE	A	45	32.220	53.935	50.052	1.00	34.79	C
ATOM	322	CD1	ILE	A	45	29.720	52.293	49.086	1.00	39.88	C
ATOM	323	N	SER	A	46	34.022	55.509	48.293	1.00	34.50	N
ATOM	324	CA	SER	A	46	34.108	56.945	48.062	1.00	34.72	C
ATOM	325	C	SER	A	46	34.660	57.298	46.682	1.00	33.50	C
ATOM	326	O	SER	A	46	34.049	58.059	45.931	1.00	35.31	O
ATOM	327	CB	SER	A	46	34.979	57.599	49.139	1.00	37.01	C
ATOM	328	OG	SER	A	46	35.062	59.004	48.952	1.00	36.66	O
ATOM	329	N	GLU	A	47	35.817	56.752	46.342	1.00	32.45	N
ATOM	330	CA	GLU	A	47	36.426	57.052	45.051	1.00	30.79	C
ATOM	331	C	GLU	A	47	35.655	56.407	43.898	1.00	28.80	C
ATOM	332	O	GLU	A	47	35.560	56.967	42.815	1.00	28.45	O
ATOM	333	CB	GLU	A	47	37.890	56.586	45.047	1.00	32.29	C
ATOM	334	CG	GLU	A	47	38.739	57.103	43.885	1.00	33.02	C
ATOM	335	CD	GLU	A	47	38.694	58.623	43.750	1.00	35.38	C
ATOM	336	OE1	GLU	A	47	38.484	59.322	44.765	1.00	34.56	O
ATOM	337	OE2	GLU	A	47	38.880	59.121	42.622	1.00	37.44	O
ATOM	338	N	MET	A	48	35.102	55.224	44.125	1.00	28.98	N
ATOM	339	CA	MET	A	48	34.347	54.563	43.067	1.00	29.38	C
ATOM	340	C	MET	A	48	33.124	55.371	42.661	1.00	26.16	C
ATOM	341	O	MET	A	48	32.835	55.548	41.474	1.00	25.57	O
ATOM	342	CB	MET	A	48	33.929	53.163	43.510	1.00	30.17	C
ATOM	343	CG	MET	A	48	34.984	52.140	43.181	1.00	35.54	C
ATOM	344	SD	MET	A	48	35.418	52.268	41.419	1.00	41.72	S
ATOM	345	CE	MET	A	48	34.088	51.459	40.712	1.00	37.21	C
ATOM	346	N	VAL	A	49	32.419	55.877	43.658	1.00	24.72	N
ATOM	347	CA	VAL	A	49	31.230	56.664	43.415	1.00	26.13	C
ATOM	348	C	VAL	A	49	31.571	57.936	42.627	1.00	26.91	C
ATOM	349	O	VAL	A	49	30.843	58.328	41.720	1.00	26.96	O
ATOM	350	CB	VAL	A	49	30.536	56.929	44.775	1.00	27.95	C
ATOM	351	CG1	VAL	A	49	30.127	58.356	44.919	1.00	31.34	C
ATOM	352	CG2	VAL	A	49	29.345	55.986	44.912	1.00	26.79	C
ATOM	353	N	VAL	A	50	32.711	58.547	42.940	1.00	28.46	N
ATOM	354	CA	VAL	A	50	33.167	59.755	42.246	1.00	26.04	C
ATOM	355	C	VAL	A	50	33.530	59.456	40.795	1.00	24.79	C
ATOM	356	O	VAL	A	50	33.280	60.268	39.888	1.00	24.49	O
ATOM	357	CB	VAL	A	50	34.434	60.343	42.927	1.00	28.79	C
ATOM	358	CG1	VAL	A	50	35.064	61.428	42.034	1.00	31.79	C
ATOM	359	CG2	VAL	A	50	34.076	60.916	44.283	1.00	30.83	C
ATOM	360	N	GLN	A	51	34.149	58.299	40.575	1.00	21.97	N
ATOM	361	CA	GLN	A	51	34.556	57.921	39.230	1.00	20.73	C
ATOM	362	C	GLN	A	51	33.372	57.469	38.376	1.00	20.16	C
ATOM	363	O	GLN	A	51	33.330	57.730	37.169	1.00	18.64	O
ATOM	364	CB	GLN	A	51	35.624	56.820	39.281	1.00	23.46	C
ATOM	365	CG	GLN	A	51	36.954	57.225	39.943	1.00	25.10	C
ATOM	366	CD	GLN	A	51	37.537	58.540	39.407	1.00	26.66	C
ATOM	367	OE1	GLN	A	51	37.426	58.857	38.220	1.00	26.21	O
ATOM	368	NE2	GLN	A	51	38.175	59.302	40.291	1.00	27.46	N
ATOM	369	N	LEU	A	52	32.413	56.779	38.988	1.00	19.42	N
ATOM	370	CA	LEU	A	52	31.234	56.348	38.233	1.00	20.76	C
ATOM	371	C	LEU	A	52	30.499	57.613	37.797	1.00	22.46	C
ATOM	372	O	LEU	A	52	29.989	57.688	36.684	1.00	25.99	O
ATOM	373	CB	LEU	A	52	30.316	55.470	39.098	1.00	14.75	C
ATOM	374	CG	LEU	A	52	30.913	54.124	39.544	1.00	16.56	C
ATOM	375	CD1	LEU	A	52	30.008	53.506	40.584	1.00	13.24	C
ATOM	376	CD2	LEU	A	52	31.094	53.187	38.341	1.00	11.80	C

ATOM	377	N	SER	A	53	30.463	58.613	38.671	1.00	24.81	N
ATOM	378	CA	SER	A	53	29.795	59.877	38.353	1.00	28.85	C
ATOM	379	C	SER	A	53	30.403	60.571	37.142	1.00	29.16	C
ATOM	380	O	SER	A	53	29.681	61.037	36.260	1.00	30.24	O
ATOM	381	CB	SER	A	53	29.842	60.826	39.552	1.00	29.60	C
ATOM	382	OG	SER	A	53	29.572	62.150	39.138	1.00	32.77	O
ATOM	383	N	ASP	A	54	31.729	60.638	37.097	1.00	30.41	N
ATOM	384	CA	ASP	A	54	32.415	61.273	35.980	1.00	31.60	C
ATOM	385	C	ASP	A	54	32.275	60.481	34.681	1.00	31.53	C
ATOM	386	O	ASP	A	54	32.151	61.060	33.595	1.00	31.38	O
ATOM	387	CB	ASP	A	54	33.904	61.465	36.296	1.00	36.88	C
ATOM	388	CG	ASP	A	54	34.685	62.011	35.101	1.00	43.96	C
ATOM	389	OD1	ASP	A	54	34.214	62.999	34.483	1.00	45.13	O
ATOM	390	OD2	ASP	A	54	35.767	61.459	34.780	1.00	47.18	O
ATOM	391	N	SER	A	55	32.304	59.158	34.775	1.00	29.76	N
ATOM	392	CA	SER	A	55	32.166	58.350	33.571	1.00	28.65	C
ATOM	393	C	SER	A	55	30.763	58.498	32.994	1.00	27.32	C
ATOM	394	O	SER	A	55	30.593	58.691	31.791	1.00	25.98	O
ATOM	395	CB	SER	A	55	32.441	56.878	33.877	1.00	29.08	C
ATOM	396	OG	SER	A	55	33.829	56.635	33.964	1.00	30.44	O
ATOM	397	N	LEU	A	56	29.765	58.410	33.869	1.00	26.64	N
ATOM	398	CA	LEU	A	56	28.367	58.520	33.466	1.00	25.98	C
ATOM	399	C	LEU	A	56	28.066	59.885	32.882	1.00	27.34	C
ATOM	400	O	LEU	A	56	27.374	59.987	31.875	1.00	27.45	O
ATOM	401	CB	LEU	A	56	27.447	58.255	34.663	1.00	23.93	C
ATOM	402	CG	LEU	A	56	27.346	56.784	35.086	1.00	24.56	C
ATOM	403	CD1	LEU	A	56	26.606	56.659	36.417	1.00	23.11	C
ATOM	404	CD2	LEU	A	56	26.643	55.990	33.987	1.00	16.90	C
ATOM	405	N	THR	A	57	28.596	60.934	33.507	1.00	27.77	N
ATOM	406	CA	THR	A	57	28.356	62.286	33.012	1.00	30.04	C
ATOM	407	C	THR	A	57	28.983	62.441	31.630	1.00	30.98	C
ATOM	408	O	THR	A	57	28.386	63.039	30.743	1.00	29.51	O
ATOM	409	CB	THR	A	57	28.936	63.363	33.960	1.00	29.71	C
ATOM	410	OG1	THR	A	57	28.451	63.150	35.289	1.00	30.34	O
ATOM	411	CG2	THR	A	57	28.492	64.742	33.514	1.00	33.01	C
ATOM	412	N	ASP	A	58	30.184	61.898	31.447	1.00	34.63	N
ATOM	413	CA	ASP	A	58	30.853	61.973	30.151	1.00	36.67	C
ATOM	414	C	ASP	A	58	30.102	61.115	29.124	1.00	37.45	C
ATOM	415	O	ASP	A	58	30.080	61.429	27.934	1.00	37.92	O
ATOM	416	CB	ASP	A	58	32.307	61.487	30.267	1.00	38.61	C
ATOM	417	CG	ASP	A	58	33.184	62.428	31.097	1.00	44.86	C
ATOM	418	OD1	ASP	A	58	34.403	62.165	31.223	1.00	46.37	O
ATOM	419	OD2	ASP	A	58	32.662	63.433	31.630	1.00	48.63	O
ATOM	420	N	LEU	A	59	29.481	60.036	29.594	1.00	37.77	N
ATOM	421	CA	LEU	A	59	28.735	59.128	28.719	1.00	37.88	C
ATOM	422	C	LEU	A	59	27.447	59.817	28.283	1.00	38.34	C
ATOM	423	O	LEU	A	59	26.964	59.634	27.165	1.00	35.35	O
ATOM	424	CB	LEU	A	59	28.423	57.828	29.476	1.00	37.16	C
ATOM	425	CG	LEU	A	59	28.103	56.510	28.750	1.00	39.59	C
ATOM	426	CD1	LEU	A	59	26.637	56.374	28.565	1.00	37.24	C
ATOM	427	CD2	LEU	A	59	28.831	56.428	27.414	1.00	38.18	C
ATOM	428	N	LEU	A	60	26.914	60.632	29.182	1.00	39.99	N
ATOM	429	CA	LEU	A	60	25.685	61.364	28.938	1.00	42.03	C
ATOM	430	C	LEU	A	60	25.788	62.336	27.760	1.00	43.49	C
ATOM	431	O	LEU	A	60	24.829	62.522	27.010	1.00	43.75	O
ATOM	432	CB	LEU	A	60	25.291	62.118	30.208	1.00	41.27	C
ATOM	433	CG	LEU	A	60	23.996	62.931	30.171	1.00	43.03	C
ATOM	434	CD1	LEU	A	60	22.830	62.045	29.746	1.00	40.00	C
ATOM	435	CD2	LEU	A	60	23.746	63.519	31.556	1.00	41.13	C
ATOM	436	N	ASP	A	61	26.949	62.955	27.587	1.00	45.27	N
ATOM	437	CA	ASP	A	61	27.116	63.904	26.491	1.00	46.56	C
ATOM	438	C	ASP	A	61	27.148	63.215	25.128	1.00	45.61	C
ATOM	439	O	ASP	A	61	27.019	63.866	24.087	1.00	43.88	O

Table 4

ATOM	440	CB	ASP	A	61	28.397	64.715	26.694	1.00	51.20	C
ATOM	441	CG	ASP	A	61	28.573	65.800	25.644	1.00	56.47	C
ATOM	442	OD1	ASP	A	61	28.936	65.473	24.490	1.00	57.52	O
ATOM	443	OD2	ASP	A	61	28.340	66.984	25.975	1.00	59.41	O
ATOM	444	N	LYS	A	62	27.299	61.893	25.136	1.00	43.35	N
ATOM	445	CA	LYS	A	62	27.368	61.130	23.897	1.00	42.66	C
ATOM	446	C	LYS	A	62	26.016	60.770	23.290	1.00	41.38	C
ATOM	447	O	LYS	A	62	25.952	60.226	22.190	1.00	39.37	O
ATOM	448	CB	LYS	A	62	28.203	59.869	24.122	1.00	43.03	C
ATOM	449	CG	LYS	A	62	29.589	60.198	24.636	1.00	44.02	C
ATOM	450	CD	LYS	A	62	30.413	58.960	24.877	1.00	47.44	C
ATOM	451	CE	LYS	A	62	31.784	59.335	25.411	1.00	47.28	C
ATOM	452	NZ	LYS	A	62	32.464	60.280	24.484	1.00	43.52	N
ATOM	453	N	PHE	A	63	24.938	61.091	23.998	1.00	41.93	N
ATOM	454	CA	PHE	A	63	23.595	60.796	23.507	1.00	43.46	C
ATOM	455	C	PHE	A	63	22.748	62.065	23.432	1.00	46.25	C
ATOM	456	O	PHE	A	63	22.971	63.017	24.178	1.00	46.18	O
ATOM	457	CB	PHE	A	63	22.900	59.768	24.417	1.00	40.85	C
ATOM	458	CG	PHE	A	63	23.607	58.442	24.492	1.00	38.31	C
ATOM	459	CD1	PHE	A	63	24.746	58.286	25.274	1.00	39.31	C
ATOM	460	CD2	PHE	A	63	23.149	57.353	23.757	1.00	39.73	C
ATOM	461	CE1	PHE	A	63	25.420	57.065	25.325	1.00	38.30	C
ATOM	462	CE2	PHE	A	63	23.816	56.128	23.800	1.00	38.66	C
ATOM	463	CZ	PHE	A	63	24.954	55.987	24.586	1.00	38.08	C
ATOM	464	N	SER	A	64	21.776	62.074	22.526	1.00	48.63	N
ATOM	465	CA	SER	A	64	20.890	63.218	22.370	1.00	50.37	C
ATOM	466	C	SER	A	64	19.587	62.934	23.102	1.00	52.06	C
ATOM	467	O	SER	A	64	19.213	61.780	23.296	1.00	51.64	O
ATOM	468	CB	SER	A	64	20.621	63.479	20.893	1.00	49.86	C
ATOM	469	OG	SER	A	64	21.835	63.733	20.205	1.00	52.62	O
ATOM	470	N	ASN	A	65	18.890	63.992	23.493	1.00	54.25	N
ATOM	471	CA	ASN	A	65	17.649	63.856	24.239	1.00	57.80	C
ATOM	472	C	ASN	A	65	16.454	63.355	23.425	1.00	59.71	C
ATOM	473	O	ASN	A	65	16.451	63.421	22.195	1.00	60.42	O
ATOM	474	CB	ASN	A	65	17.315	65.198	24.894	1.00	59.02	C
ATOM	475	CG	ASN	A	65	16.637	65.042	26.241	1.00	60.67	C
ATOM	476	OD1	ASN	A	65	16.614	65.975	27.050	1.00	61.56	O
ATOM	477	ND2	ASN	A	65	16.074	63.865	26.490	1.00	61.15	N
ATOM	478	N	ILE	A	66	15.459	62.843	24.153	1.00	61.50	N
ATOM	479	CA	ILE	A	66	14.186	62.305	23.643	1.00	62.44	C
ATOM	480	C	ILE	A	66	13.529	61.546	24.806	1.00	63.95	C
ATOM	481	O	ILE	A	66	12.870	60.519	24.616	1.00	64.12	O
ATOM	482	CB	ILE	A	66	14.365	61.321	22.447	1.00	61.28	C
ATOM	483	CG1	ILE	A	66	15.643	60.496	22.623	1.00	61.28	C
ATOM	484	CG2	ILE	A	66	14.337	62.085	21.132	1.00	61.26	C
ATOM	485	CD1	ILE	A	66	15.873	59.478	21.519	1.00	59.60	C
ATOM	486	N	SER	A	67	13.718	62.085	26.009	1.00	65.07	N
ATOM	487	CA	SER	A	67	13.213	61.514	27.262	1.00	65.71	C
ATOM	488	C	SER	A	67	11.736	61.136	27.338	1.00	65.66	C
ATOM	489	O	SER	A	67	11.220	60.882	28.431	1.00	65.09	O
ATOM	490	CB	SER	A	67	13.534	62.467	28.420	1.00	66.10	C
ATOM	491	OG	SER	A	67	12.963	63.747	28.205	1.00	64.67	O
ATOM	492	N	GLU	A	68	11.058	61.086	26.196	1.00	65.62	N
ATOM	493	CA	GLU	A	68	9.641	60.736	26.182	1.00	65.03	C
ATOM	494	C	GLU	A	68	9.419	59.263	25.815	1.00	63.78	C
ATOM	495	O	GLU	A	68	8.519	58.935	25.040	1.00	63.37	O
ATOM	496	CB	GLU	A	68	8.898	61.640	25.197	1.00	65.93	C
ATOM	497	CG	GLU	A	68	7.406	61.729	25.450	1.00	67.61	C
ATOM	498	CD	GLU	A	68	6.706	62.641	24.464	1.00	68.82	C
ATOM	499	OE1	GLU	A	68	6.517	62.225	23.299	1.00	68.58	O
ATOM	500	OE2	GLU	A	68	6.356	63.776	24.857	1.00	68.78	O
ATOM	501	N	GLY	A	69	10.242	58.380	26.376	1.00	62.73	N
ATOM	502	CA	GLY	A	69	10.112	56.960	26.089	1.00	60.38	C

Table 4

ATOM	503	C	GLY	A	69	11.318	56.129	26.496	1.00	58.08	C
ATOM	504	O	GLY	A	69	11.721	55.220	25.766	1.00	57.97	O
ATOM	505	N	LEU	A	70	11.891	56.449	27.659	1.00	55.78	N
ATOM	506	CA	LEU	A	70	13.061	55.748	28.204	1.00	51.80	C
ATOM	507	C	LEU	A	70	14.243	55.633	27.242	1.00	49.05	C
ATOM	508	O	LEU	A	70	14.664	54.529	26.895	1.00	47.57	O
ATOM	509	CB	LEU	A	70	12.670	54.344	28.669	1.00	53.32	C
ATOM	510	CG	LEU	A	70	11.781	54.192	29.902	1.00	54.23	C
ATOM	511	CD1	LEU	A	70	11.330	52.742	30.021	1.00	55.04	C
ATOM	512	CD2	LEU	A	70	12.542	54.631	31.143	1.00	53.18	C
ATOM	513	N	SER	A	71	14.776	56.770	26.812	1.00	45.73	N
ATOM	514	CA	SER	A	71	15.924	56.781	25.912	1.00	41.79	C
ATOM	515	C	SER	A	71	17.195	56.580	26.741	1.00	38.39	C
ATOM	516	O	SER	A	71	17.169	56.692	27.962	1.00	36.09	O
ATOM	517	CB	SER	A	71	16.004	58.122	25.182	1.00	40.37	C
ATOM	518	OG	SER	A	71	16.164	59.185	26.107	1.00	40.70	O
ATOM	519	N	ASN	A	72	18.307	56.286	26.078	1.00	36.35	N
ATOM	520	CA	ASN	A	72	19.559	56.102	26.794	1.00	34.21	C
ATOM	521	C	ASN	A	72	19.874	57.380	27.554	1.00	32.13	C
ATOM	522	O	ASN	A	72	20.222	57.343	28.734	1.00	32.02	O
ATOM	523	CB	ASN	A	72	20.699	55.750	25.823	1.00	33.32	C
ATOM	524	CG	ASN	A	72	20.574	54.334	25.271	1.00	34.31	C
ATOM	525	OD1	ASN	A	72	19.927	53.489	25.878	1.00	34.94	O
ATOM	526	ND2	ASN	A	72	21.205	54.068	24.128	1.00	36.96	N
ATOM	527	N	TYR	A	73	19.723	58.511	26.880	1.00	32.21	N
ATOM	528	CA	TYR	A	73	19.986	59.810	27.490	1.00	33.90	C
ATOM	529	C	TYR	A	73	19.269	59.956	28.833	1.00	34.77	C
ATOM	530	O	TYR	A	73	19.876	60.292	29.854	1.00	35.67	O
ATOM	531	CB	TYR	A	73	19.522	60.941	26.557	1.00	34.65	C
ATOM	532	CG	TYR	A	73	19.867	62.324	27.081	1.00	35.46	C
ATOM	533	CD1	TYR	A	73	21.042	62.965	26.695	1.00	36.50	C
ATOM	534	CD2	TYR	A	73	19.057	62.951	28.024	1.00	36.48	C
ATOM	535	CE1	TYR	A	73	21.402	64.196	27.242	1.00	40.10	C
ATOM	536	CE2	TYR	A	73	19.408	64.175	28.580	1.00	37.06	C
ATOM	537	CZ	TYR	A	73	20.578	64.793	28.189	1.00	40.24	C
ATOM	538	OH	TYR	A	73	20.931	65.999	28.757	1.00	44.57	O
ATOM	539	N	SER	A	74	17.967	59.702	28.820	1.00	34.84	N
ATOM	540	CA	SER	A	74	17.142	59.827	30.014	1.00	35.51	C
ATOM	541	C	SER	A	74	17.541	58.899	31.151	1.00	33.42	C
ATOM	542	O	SER	A	74	17.619	59.317	32.310	1.00	34.04	O
ATOM	543	CB	SER	A	74	15.674	59.599	29.642	1.00	38.11	C
ATOM	544	OG	SER	A	74	15.547	58.459	28.803	1.00	42.69	O
ATOM	545	N	ILE	A	75	17.785	57.637	30.825	1.00	31.51	N
ATOM	546	CA	ILE	A	75	18.167	56.660	31.833	1.00	28.28	C
ATOM	547	C	ILE	A	75	19.512	57.029	32.469	1.00	28.34	C
ATOM	548	O	ILE	A	75	19.673	56.975	33.688	1.00	28.58	O
ATOM	549	CB	ILE	A	75	18.243	55.254	31.203	1.00	28.45	C
ATOM	550	CG1	ILE	A	75	16.832	54.800	30.812	1.00	27.74	C
ATOM	551	CG2	ILE	A	75	18.895	54.269	32.174	1.00	25.94	C
ATOM	552	CD1	ILE	A	75	16.796	53.502	30.039	1.00	26.89	C
ATOM	553	N	ILE	A	76	20.471	57.400	31.632	1.00	27.29	N
ATOM	554	CA	ILE	A	76	21.788	57.787	32.095	1.00	27.88	C
ATOM	555	C	ILE	A	76	21.663	59.010	32.997	1.00	29.70	C
ATOM	556	O	ILE	A	76	22.229	59.046	34.100	1.00	27.15	O
ATOM	557	CB	ILE	A	76	22.694	58.113	30.904	1.00	26.65	C
ATOM	558	CG1	ILE	A	76	22.845	56.863	30.028	1.00	24.16	C
ATOM	559	CG2	ILE	A	76	24.053	58.595	31.397	1.00	28.04	C
ATOM	560	CD1	ILE	A	76	23.625	57.094	28.747	1.00	21.67	C
ATOM	561	N	ASP	A	77	20.914	60.009	32.537	1.00	32.01	N
ATOM	562	CA	ASP	A	77	20.709	61.219	33.338	1.00	34.74	C
ATOM	563	C	ASP	A	77	20.169	60.786	34.701	1.00	33.99	C
ATOM	564	O	ASP	A	77	20.594	61.286	35.738	1.00	34.81	O
ATOM	565	CB	ASP	A	77	19.710	62.158	32.650	1.00	38.27	C

ATOM	566	CG	ASP	A	77	19.685	63.550	33.273	1.00	41.20	C
ATOM	567	OD1	ASP	A	77	18.592	63.993	33.692	1.00	40.44	O
ATOM	568	OD2	ASP	A	77	20.754	64.204	33.338	1.00	40.25	O
ATOM	569	N	LYS	A	78	19.249	59.828	34.698	1.00	33.71	N
ATOM	570	CA	LYS	A	78	18.682	59.336	35.952	1.00	34.96	C
ATOM	571	C	LYS	A	78	19.762	58.680	36.824	1.00	34.39	C
ATOM	572	O	LYS	A	78	19.722	58.768	38.060	1.00	33.35	O
ATOM	573	CB	LYS	A	78	17.569	58.319	35.685	1.00	35.88	C
ATOM	574	CG	LYS	A	78	16.930	57.796	36.968	1.00	41.99	C
ATOM	575	CD	LYS	A	78	16.212	56.471	36.767	1.00	46.87	C
ATOM	576	CE	LYS	A	78	15.618	55.961	38.080	1.00	50.42	C
ATOM	577	NZ	LYS	A	78	16.653	55.759	39.140	1.00	51.21	N
ATOM	578	N	LEU	A	79	20.717	58.013	36.182	1.00	31.75	N
ATOM	579	CA	LEU	A	79	21.791	57.358	36.921	1.00	32.48	C
ATOM	580	C	LEU	A	79	22.852	58.371	37.357	1.00	31.83	C
ATOM	581	O	LEU	A	79	23.494	58.205	38.392	1.00	31.52	O
ATOM	582	CB	LEU	A	79	22.410	56.244	36.074	1.00	29.79	C
ATOM	583	CG	LEU	A	79	21.396	55.148	35.706	1.00	27.89	C
ATOM	584	CD1	LEU	A	79	22.032	54.135	34.757	1.00	29.30	C
ATOM	585	CD2	LEU	A	79	20.899	54.470	36.978	1.00	25.77	C
ATOM	586	N	VAL	A	80	23.025	59.427	36.573	1.00	32.63	N
ATOM	587	CA	VAL	A	80	23.982	60.460	36.928	1.00	33.72	C
ATOM	588	C	VAL	A	80	23.559	61.094	38.251	1.00	34.77	C
ATOM	589	O	VAL	A	80	24.379	61.298	39.149	1.00	35.56	O
ATOM	590	CB	VAL	A	80	24.049	61.562	35.861	1.00	34.70	C
ATOM	591	CG1	VAL	A	80	24.734	62.792	36.435	1.00	35.98	C
ATOM	592	CG2	VAL	A	80	24.812	61.065	34.653	1.00	34.16	C
ATOM	593	N	ASN	A	81	22.269	61.390	38.373	1.00	34.14	N
ATOM	594	CA	ASN	A	81	21.747	62.008	39.584	1.00	33.35	C
ATOM	595	C	ASN	A	81	21.853	61.128	40.824	1.00	32.98	C
ATOM	596	O	ASN	A	81	22.174	61.610	41.914	1.00	32.45	O
ATOM	597	CB	ASN	A	81	20.300	62.432	39.355	1.00	35.05	C
ATOM	598	CG	ASN	A	81	20.147	63.289	38.115	1.00	36.59	C
ATOM	599	OD1	ASN	A	81	20.902	64.240	37.906	1.00	35.13	O
ATOM	600	ND2	ASN	A	81	19.169	62.955	37.282	1.00	39.80	N
ATOM	601	N	ILE	A	82	21.584	59.840	40.672	1.00	33.56	N
ATOM	602	CA	ILE	A	82	21.676	58.927	41.806	1.00	33.86	C
ATOM	603	C	ILE	A	82	23.092	58.918	42.372	1.00	32.61	C
ATOM	604	O	ILE	A	82	23.281	59.059	43.576	1.00	32.75	O
ATOM	605	CB	ILE	A	82	21.334	57.482	41.408	1.00	34.33	C
ATOM	606	CG1	ILE	A	82	19.888	57.396	40.932	1.00	36.95	C
ATOM	607	CG2	ILE	A	82	21.536	56.563	42.593	1.00	35.34	C
ATOM	608	CD1	ILE	A	82	19.521	56.046	40.357	1.00	36.95	C
ATOM	609	N	VAL	A	83	24.077	58.767	41.489	1.00	32.99	N
ATOM	610	CA	VAL	A	83	25.484	58.701	41.887	1.00	33.17	C
ATOM	611	C	VAL	A	83	26.003	60.031	42.447	1.00	33.20	C
ATOM	612	O	VAL	A	83	26.795	60.046	43.391	1.00	31.86	O
ATOM	613	CB	VAL	A	83	26.369	58.204	40.689	1.00	32.36	C
ATOM	614	CG1	VAL	A	83	26.508	59.288	39.642	1.00	34.69	C
ATOM	615	CG2	VAL	A	83	27.724	57.756	41.176	1.00	32.84	C
ATOM	616	N	ASP	A	84	25.556	61.147	41.881	1.00	33.98	N
ATOM	617	CA	ASP	A	84	25.985	62.445	42.392	1.00	34.87	C
ATOM	618	C	ASP	A	84	25.539	62.619	43.830	1.00	33.82	C
ATOM	619	O	ASP	A	84	26.292	63.135	44.649	1.00	33.58	O
ATOM	620	CB	ASP	A	84	25.428	63.600	41.556	1.00	37.69	C
ATOM	621	CG	ASP	A	84	26.204	63.817	40.275	1.00	41.84	C
ATOM	622	OD1	ASP	A	84	27.410	63.473	40.255	1.00	44.26	O
ATOM	623	OD2	ASP	A	84	25.620	64.341	39.298	1.00	42.50	O
ATOM	624	N	ASP	A	85	24.319	62.195	44.147	1.00	33.77	N
ATOM	625	CA	ASP	A	85	23.843	62.330	45.516	1.00	34.83	C
ATOM	626	C	ASP	A	85	24.598	61.405	46.453	1.00	34.94	C
ATOM	627	O	ASP	A	85	24.789	61.722	47.622	1.00	35.58	O
ATOM	628	CB	ASP	A	85	22.338	62.056	45.621	1.00	34.28	C

ATOM	629	CG	ASP	A	85	21.494	63.238	45.159	1.00	34.19	C
ATOM	630	OD1	ASP	A	85	21.834	64.409	45.479	1.00	35.35	O
ATOM	631	OD2	ASP	A	85	20.480	62.995	44.483	1.00	31.86	O
ATOM	632	N	LEU	A	86	25.021	60.253	45.950	1.00	35.16	N
ATOM	633	CA	LEU	A	86	25.779	59.331	46.776	1.00	35.91	C
ATOM	634	C	LEU	A	86	27.117	60.003	47.051	1.00	37.76	C
ATOM	635	O	LEU	A	86	27.698	59.853	48.126	1.00	38.30	O
ATOM	636	CB	LEU	A	86	25.988	58.007	46.043	1.00	38.20	C
ATOM	637	CG	LEU	A	86	24.740	57.137	45.912	1.00	37.91	C
ATOM	638	CD1	LEU	A	86	25.039	55.940	45.016	1.00	36.31	C
ATOM	639	CD2	LEU	A	86	24.288	56.696	47.308	1.00	36.80	C
ATOM	640	N	VAL	A	87	27.602	60.748	46.066	1.00	38.12	N
ATOM	641	CA	VAL	A	87	28.853	61.468	46.223	1.00	42.55	C
ATOM	642	C	VAL	A	87	28.661	62.462	47.362	1.00	45.41	C
ATOM	643	O	VAL	A	87	29.497	62.575	48.259	1.00	44.45	O
ATOM	644	CB	VAL	A	87	29.208	62.266	44.956	1.00	42.27	C
ATOM	645	CG1	VAL	A	87	30.362	63.207	45.250	1.00	42.69	C
ATOM	646	CG2	VAL	A	87	29.549	61.319	43.817	1.00	41.63	C
ATOM	647	N	GLU	A	88	27.550	63.191	47.309	1.00	48.56	N
ATOM	648	CA	GLU	A	88	27.239	64.179	48.330	1.00	52.09	C
ATOM	649	C	GLU	A	88	27.298	63.531	49.699	1.00	54.56	C
ATOM	650	O	GLU	A	88	28.064	63.956	50.560	1.00	54.23	O
ATOM	651	CB	GLU	A	88	25.847	64.761	48.089	1.00	53.28	C
ATOM	652	CG	GLU	A	88	25.791	65.815	46.995	1.00	54.41	C
ATOM	653	CD	GLU	A	88	24.377	66.096	46.532	1.00	55.68	C
ATOM	654	OE1	GLU	A	88	23.475	66.192	47.387	1.00	58.43	O
ATOM	655	OE2	GLU	A	88	24.166	66.230	45.312	1.00	58.39	O
ATOM	656	N	CYS	A	89	26.499	62.490	49.890	1.00	57.50	N
ATOM	657	CA	CYS	A	89	26.467	61.792	51.161	1.00	62.27	C
ATOM	658	C	CYS	A	89	27.866	61.420	51.647	1.00	62.66	C
ATOM	659	O	CYS	A	89	28.289	61.839	52.724	1.00	62.85	O
ATOM	660	CB	CYS	A	89	25.601	60.536	51.050	1.00	67.26	C
ATOM	661	SG	CYS	A	89	25.709	59.436	52.501	1.00	78.05	S
ATOM	662	N	VAL	A	90	28.583	60.638	50.849	1.00	62.27	N
ATOM	663	CA	VAL	A	90	29.927	60.210	51.214	1.00	63.33	C
ATOM	664	C	VAL	A	90	30.805	61.341	51.768	1.00	62.95	C
ATOM	665	O	VAL	A	90	31.500	61.159	52.765	1.00	61.82	O
ATOM	666	CB	VAL	A	90	30.628	59.537	50.010	1.00	63.19	C
ATOM	667	CG1	VAL	A	90	32.103	59.345	50.300	1.00	64.89	C
ATOM	668	CG2	VAL	A	90	29.981	58.191	49.732	1.00	61.96	C
ATOM	669	N	LYS	A	91	30.773	62.504	51.126	1.00	63.59	N
ATOM	670	CA	LYS	A	91	31.563	63.642	51.587	1.00	64.50	C
ATOM	671	C	LYS	A	91	31.004	64.194	52.893	1.00	65.68	C
ATOM	672	O	LYS	A	91	31.742	64.743	53.712	1.00	65.73	O
ATOM	673	CB	LYS	A	91	31.553	64.766	50.553	1.00	64.42	C
ATOM	674	CG	LYS	A	91	32.276	64.464	49.263	1.00	65.33	C
ATOM	675	CD	LYS	A	91	32.184	65.663	48.337	1.00	66.20	C
ATOM	676	CE	LYS	A	91	32.915	65.423	47.028	1.00	67.45	C
ATOM	677	NZ	LYS	A	91	32.938	66.661	46.200	1.00	67.45	N
ATOM	678	N	GLU	A	92	29.697	64.047	53.080	1.00	66.60	N
ATOM	679	CA	GLU	A	92	29.037	64.553	54.274	1.00	68.25	C
ATOM	680	C	GLU	A	92	29.061	63.561	55.430	1.00	68.30	C
ATOM	681	O	GLU	A	92	29.281	63.944	56.575	1.00	68.42	O
ATOM	682	CB	GLU	A	92	27.591	64.950	53.940	1.00	68.61	C
ATOM	683	CG	GLU	A	92	27.496	65.964	52.791	1.00	71.45	C
ATOM	684	CD	GLU	A	92	26.065	66.347	52.416	1.00	72.08	C
ATOM	685	OE1	GLU	A	92	25.233	65.437	52.196	1.00	70.81	O
ATOM	686	OE2	GLU	A	92	25.782	67.564	52.327	1.00	71.57	O
ATOM	687	N	ASN	A	93	28.843	62.286	55.129	1.00	69.10	N
ATOM	688	CA	ASN	A	93	28.832	61.254	56.161	1.00	69.73	C
ATOM	689	C	ASN	A	93	30.151	60.498	56.216	1.00	69.75	C
ATOM	690	O	ASN	A	93	30.178	59.269	56.140	1.00	67.54	O
ATOM	691	CB	ASN	A	93	27.677	60.282	55.914	1.00	70.14	C

ATOM	692	CG	ASN	A	93	26.317	60.936	56.107	1.00	71.63	C
ATOM	693	OD1	ASN	A	93	26.000	61.420	57.193	1.00	71.75	O
ATOM	694	ND2	ASN	A	93	25.510	60.956	55.052	1.00	71.69	N
ATOM	695	N	SER	A	94	31.239	61.250	56.366	1.00	71.08	N
ATOM	696	CA	SER	A	94	32.582	60.680	56.420	1.00	72.71	C
ATOM	697	C	SER	A	94	33.074	60.398	57.841	1.00	72.70	C
ATOM	698	O	SER	A	94	32.984	61.248	58.730	1.00	72.27	O
ATOM	699	CB	SER	A	94	33.568	61.608	55.703	1.00	73.81	C
ATOM	700	OG	SER	A	94	33.476	62.940	56.181	1.00	75.51	O
ATOM	701	N	SER	A	95	33.599	59.189	58.031	1.00	72.69	N
ATOM	702	CA	SER	A	95	34.111	58.721	59.316	1.00	72.24	C
ATOM	703	C	SER	A	95	34.363	57.224	59.161	1.00	72.10	C
ATOM	704	O	SER	A	95	33.463	56.484	58.757	1.00	72.07	O
ATOM	705	CB	SER	A	95	33.078	58.963	60.421	1.00	72.42	C
ATOM	706	OG	SER	A	95	31.836	58.353	60.102	1.00	71.47	O
ATOM	707	N	LYS	A	96	35.581	56.781	59.473	1.00	71.80	N
ATOM	708	CA	LYS	A	96	35.948	55.369	59.334	1.00	70.97	C
ATOM	709	C	LYS	A	96	35.941	55.055	57.840	1.00	70.26	C
ATOM	710	O	LYS	A	96	36.373	53.990	57.404	1.00	69.79	O
ATOM	711	CB	LYS	A	96	34.929	54.470	60.043	1.00	71.97	C
ATOM	712	CG	LYS	A	96	34.719	54.773	61.518	1.00	72.65	C
ATOM	713	CD	LYS	A	96	33.535	53.988	62.067	1.00	72.31	C
ATOM	714	CE	LYS	A	96	33.365	54.197	63.563	1.00	72.18	C
ATOM	715	NZ	LYS	A	96	34.501	53.627	64.341	1.00	72.30	N
ATOM	716	N	ASP	A	97	35.435	56.015	57.073	1.00	70.01	N
ATOM	717	CA	ASP	A	97	35.321	55.930	55.623	1.00	69.44	C
ATOM	718	C	ASP	A	97	36.425	56.795	55.011	1.00	68.15	C
ATOM	719	O	ASP	A	97	36.615	57.937	55.427	1.00	67.24	O
ATOM	720	CB	ASP	A	97	33.937	56.449	55.215	1.00	70.94	C
ATOM	721	CG	ASP	A	97	33.650	56.265	53.745	1.00	72.18	C
ATOM	722	OD1	ASP	A	97	34.271	56.973	52.923	1.00	73.65	O
ATOM	723	OD2	ASP	A	97	32.800	55.408	53.415	1.00	72.87	O
ATOM	724	N	LEU	A	98	37.157	56.256	54.038	1.00	67.60	N
ATOM	725	CA	LEU	A	98	38.240	57.017	53.415	1.00	68.68	C
ATOM	726	C	LEU	A	98	37.741	58.216	52.616	1.00	69.78	C
ATOM	727	O	LEU	A	98	38.022	58.334	51.423	1.00	69.16	O
ATOM	728	CB	LEU	A	98	39.096	56.121	52.507	1.00	67.38	C
ATOM	729	CG	LEU	A	98	40.061	55.113	53.148	1.00	67.16	C
ATOM	730	CD1	LEU	A	98	41.063	54.637	52.097	1.00	65.06	C
ATOM	731	CD2	LEU	A	98	40.807	55.758	54.311	1.00	66.45	C
ATOM	732	N	LYS	A	99	37.010	59.106	53.284	1.00	71.95	N
ATOM	733	CA	LYS	A	99	36.470	60.300	52.641	1.00	73.06	C
ATOM	734	C	LYS	A	99	37.514	60.934	51.733	1.00	73.45	C
ATOM	735	O	LYS	A	99	38.408	61.647	52.188	1.00	74.34	O
ATOM	736	CB	LYS	A	99	36.013	61.324	53.689	1.00	73.26	C
ATOM	737	CG	LYS	A	99	37.123	61.846	54.598	1.00	76.26	C
ATOM	738	CD	LYS	A	99	36.663	63.051	55.420	1.00	78.03	C
ATOM	739	CE	LYS	A	99	37.794	63.598	56.295	1.00	78.42	C
ATOM	740	NZ	LYS	A	99	37.377	64.795	57.091	1.00	77.23	N
ATOM	741	N	LYS	A	100	37.397	60.657	50.440	1.00	74.11	N
ATOM	742	CA	LYS	A	100	38.320	61.197	49.453	1.00	73.86	C
ATOM	743	C	LYS	A	100	39.731	60.728	49.762	1.00	73.67	C
ATOM	744	O	LYS	A	100	39.917	59.744	50.475	1.00	73.41	O
ATOM	745	CB	LYS	A	100	38.255	62.727	49.453	1.00	74.51	C
ATOM	746	CG	LYS	A	100	38.514	63.373	48.097	1.00	75.16	C
ATOM	747	CD	LYS	A	100	38.165	64.857	48.144	1.00	76.21	C
ATOM	748	CE	LYS	A	100	38.280	65.517	46.776	1.00	75.62	C
ATOM	749	NZ	LYS	A	100	37.939	66.967	46.843	1.00	74.24	N
ATOM	750	N	SER	A	101	40.705	61.454	49.222	1.00	73.99	N
ATOM	751	CA	SER	A	101	42.134	61.174	49.366	1.00	74.29	C
ATOM	752	C	SER	A	101	42.577	60.588	48.037	1.00	75.40	C
ATOM	753	O	SER	A	101	42.055	59.561	47.595	1.00	75.14	O
ATOM	754	CB	SER	A	101	42.424	60.165	50.478	1.00	73.98	C

Table 4

ATOM	755	OG	SER	A	101	42.249	58.840	50.009	1.00	70.78	O
ATOM	756	N	PHE	A	102	43.532	61.255	47.398	1.00	76.34	N
ATOM	757	CA	PHE	A	102	44.047	60.822	46.108	1.00	76.69	C
ATOM	758	C	PHE	A	102	43.071	61.231	45.006	1.00	76.76	C
ATOM	759	O	PHE	A	102	43.028	62.394	44.595	1.00	76.40	O
ATOM	760	CB	PHE	A	102	44.237	59.299	46.092	1.00	75.92	C
ATOM	761	CG	PHE	A	102	45.223	58.823	45.069	1.00	77.00	C
ATOM	762	CD1	PHE	A	102	46.583	59.073	45.231	1.00	77.34	C
ATOM	763	CD2	PHE	A	102	44.799	58.129	43.945	1.00	76.96	C
ATOM	764	CE1	PHE	A	102	47.507	58.638	44.289	1.00	77.66	C
ATOM	765	CE2	PHE	A	102	45.714	57.688	42.994	1.00	78.03	C
ATOM	766	CZ	PHE	A	102	47.073	57.944	43.167	1.00	78.07	C
ATOM	767	N	LYS	A	103	42.278	60.265	44.555	1.00	76.89	N
ATOM	768	CA	LYS	A	103	41.300	60.467	43.489	1.00	75.84	C
ATOM	769	C	LYS	A	103	42.016	60.600	42.151	1.00	74.97	C
ATOM	770	O	LYS	A	103	42.033	61.670	41.538	1.00	75.72	O
ATOM	771	CB	LYS	A	103	40.434	61.706	43.754	1.00	76.14	C
ATOM	772	CG	LYS	A	103	39.321	61.908	42.727	1.00	75.38	C
ATOM	773	CD	LYS	A	103	38.326	62.977	43.159	1.00	75.24	C
ATOM	774	CE	LYS	A	103	37.647	62.607	44.470	1.00	76.66	C
ATOM	775	NZ	LYS	A	103	36.670	63.644	44.905	1.00	77.05	N
ATOM	776	N	SER	A	104	42.621	59.496	41.720	1.00	73.25	N
ATOM	777	CA	SER	A	104	43.343	59.435	40.457	1.00	70.83	C
ATOM	778	C	SER	A	104	43.823	58.012	40.156	1.00	68.77	C
ATOM	779	O	SER	A	104	44.997	57.790	39.849	1.00	67.79	O
ATOM	780	CB	SER	A	104	44.536	60.396	40.478	1.00	71.12	C
ATOM	781	OG	SER	A	104	45.419	60.096	41.542	1.00	72.02	O
ATOM	782	N	PRO	A	105	42.918	57.023	40.255	1.00	66.86	N
ATOM	783	CA	PRO	A	105	43.317	55.641	39.971	1.00	64.75	C
ATOM	784	C	PRO	A	105	43.604	55.486	38.481	1.00	61.83	C
ATOM	785	O	PRO	A	105	43.587	56.464	37.738	1.00	60.17	O
ATOM	786	CB	PRO	A	105	42.104	54.830	40.429	1.00	64.56	C
ATOM	787	CG	PRO	A	105	40.969	55.755	40.161	1.00	65.66	C
ATOM	788	CD	PRO	A	105	41.499	57.085	40.652	1.00	66.17	C
ATOM	789	N	GLU	A	106	43.864	54.261	38.045	1.00	60.87	N
ATOM	790	CA	GLU	A	106	44.160	54.022	36.640	1.00	59.84	C
ATOM	791	C	GLU	A	106	42.910	53.757	35.812	1.00	57.01	C
ATOM	792	O	GLU	A	106	42.089	52.900	36.151	1.00	55.55	O
ATOM	793	CB	GLU	A	106	45.109	52.838	36.477	1.00	62.12	C
ATOM	794	CG	GLU	A	106	45.608	52.680	35.053	1.00	64.12	C
ATOM	795	CD	GLU	A	106	45.997	51.260	34.728	1.00	64.48	C
ATOM	796	OE1	GLU	A	106	46.598	51.047	33.656	1.00	65.35	O
ATOM	797	OE2	GLU	A	106	45.694	50.358	35.539	1.00	64.07	O
ATOM	798	N	PRO	A	107	42.765	54.486	34.700	1.00	54.46	N
ATOM	799	CA	PRO	A	107	41.633	54.374	33.781	1.00	53.06	C
ATOM	800	C	PRO	A	107	41.696	53.166	32.851	1.00	50.35	C
ATOM	801	O	PRO	A	107	42.691	52.962	32.162	1.00	49.73	O
ATOM	802	CB	PRO	A	107	41.702	55.684	33.005	1.00	55.58	C
ATOM	803	CG	PRO	A	107	43.183	55.913	32.905	1.00	54.79	C
ATOM	804	CD	PRO	A	107	43.654	55.595	34.303	1.00	54.48	C
ATOM	805	N	ARG	A	108	40.640	52.359	32.844	1.00	47.27	N
ATOM	806	CA	ARG	A	108	40.589	51.216	31.945	1.00	45.13	C
ATOM	807	C	ARG	A	108	39.271	51.171	31.180	1.00	42.72	C
ATOM	808	O	ARG	A	108	38.344	51.927	31.469	1.00	41.21	O
ATOM	809	CB	ARG	A	108	40.839	49.895	32.688	1.00	46.99	C
ATOM	810	CG	ARG	A	108	40.379	49.829	34.119	1.00	47.99	C
ATOM	811	CD	ARG	A	108	40.904	48.555	34.807	1.00	49.01	C
ATOM	812	NE	ARG	A	108	40.328	47.316	34.274	1.00	48.82	N
ATOM	813	CZ	ARG	A	108	40.335	46.146	34.918	1.00	49.68	C
ATOM	814	NH1	ARG	A	108	40.887	46.047	36.121	1.00	47.24	N
ATOM	815	NH2	ARG	A	108	39.775	45.074	34.370	1.00	47.63	N
ATOM	816	N	LEU	A	109	39.196	50.289	30.192	1.00	40.92	N
ATOM	817	CA	LEU	A	109	38.001	50.174	29.375	1.00	38.05	C

Table 4

ATOM	818	C	LEU	A	109	37.110	49.010	29.788	1.00	36.27	C
ATOM	819	O	LEU	A	109	37.594	47.933	30.134	1.00	36.26	O
ATOM	820	CB	LEU	A	109	38.400	50.037	27.909	1.00	38.61	C
ATOM	821	CG	LEU	A	109	39.249	51.180	27.345	1.00	38.72	C
ATOM	822	CD1	LEU	A	109	39.475	50.955	25.851	1.00	38.93	C
ATOM	823	CD2	LEU	A	109	38.545	52.508	27.566	1.00	38.92	C
ATOM	824	N	PHE	A	110	35.801	49.245	29.766	1.00	33.35	N
ATOM	825	CA	PHE	A	110	34.830	48.221	30.135	1.00	31.65	C
ATOM	826	C	PHE	A	110	33.674	48.129	29.146	1.00	31.77	C
ATOM	827	O	PHE	A	110	33.274	49.127	28.520	1.00	29.31	O
ATOM	828	CB	PHE	A	110	34.231	48.494	31.525	1.00	30.30	C
ATOM	829	CG	PHE	A	110	35.226	48.441	32.643	1.00	29.40	C
ATOM	830	CD1	PHE	A	110	35.999	49.560	32.963	1.00	30.14	C
ATOM	831	CD2	PHE	A	110	35.427	47.260	33.353	1.00	29.90	C
ATOM	832	CE1	PHE	A	110	36.964	49.498	33.976	1.00	29.02	C
ATOM	833	CE2	PHE	A	110	36.392	47.184	34.372	1.00	28.63	C
ATOM	834	CZ	PHE	A	110	37.160	48.304	34.681	1.00	29.05	C
ATOM	835	N	THR	A	111	33.144	46.920	29.003	1.00	28.64	N
ATOM	836	CA	THR	A	111	31.988	46.710	28.139	1.00	27.53	C
ATOM	837	C	THR	A	111	30.832	47.280	28.946	1.00	24.61	C
ATOM	838	O	THR	A	111	30.939	47.436	30.166	1.00	23.79	O
ATOM	839	CB	THR	A	111	31.709	45.207	27.917	1.00	27.63	C
ATOM	840	OG1	THR	A	111	30.479	45.049	27.198	1.00	37.58	O
ATOM	841	CG2	THR	A	111	31.560	44.509	29.240	1.00	27.65	C
ATOM	842	N	PRO	A	112	29.718	47.618	28.289	1.00	24.99	N
ATOM	843	CA	PRO	A	112	28.607	48.158	29.078	1.00	25.57	C
ATOM	844	C	PRO	A	112	28.216	47.186	30.206	1.00	27.59	C
ATOM	845	O	PRO	A	112	27.982	47.593	31.348	1.00	27.07	O
ATOM	846	CB	PRO	A	112	27.514	48.340	28.032	1.00	25.52	C
ATOM	847	CG	PRO	A	112	28.320	48.756	26.798	1.00	24.47	C
ATOM	848	CD	PRO	A	112	29.480	47.776	26.840	1.00	24.44	C
ATOM	849	N	GLU	A	113	28.183	45.898	29.880	1.00	29.83	N
ATOM	850	CA	GLU	A	113	27.837	44.850	30.839	1.00	33.19	C
ATOM	851	C	GLU	A	113	28.733	44.907	32.079	1.00	30.68	C
ATOM	852	O	GLU	A	113	28.243	44.928	33.204	1.00	30.34	O
ATOM	853	CB	GLU	A	113	27.981	43.475	30.174	1.00	37.00	C
ATOM	854	CG	GLU	A	113	26.730	42.612	30.231	1.00	45.69	C
ATOM	855	CD	GLU	A	113	26.314	42.255	31.651	1.00	50.82	C
ATOM	856	OE1	GLU	A	113	25.922	43.167	32.418	1.00	52.22	O
ATOM	857	OE2	GLU	A	113	26.379	41.054	31.997	1.00	54.13	O
ATOM	858	N	GLU	A	114	30.044	44.907	31.852	1.00	29.98	N
ATOM	859	CA	GLU	A	114	31.041	44.969	32.918	1.00	29.70	C
ATOM	860	C	GLU	A	114	30.951	46.295	33.662	1.00	27.58	C
ATOM	861	O	GLU	A	114	30.993	46.331	34.887	1.00	25.96	O
ATOM	862	CB	GLU	A	114	32.446	44.825	32.332	1.00	33.04	C
ATOM	863	CG	GLU	A	114	32.800	43.427	31.863	1.00	37.74	C
ATOM	864	CD	GLU	A	114	34.018	43.395	30.940	1.00	39.47	C
ATOM	865	OE1	GLU	A	114	34.524	42.280	30.682	1.00	42.15	O
ATOM	866	OE2	GLU	A	114	34.461	44.471	30.467	1.00	37.94	O
ATOM	867	N	PHE	A	115	30.833	47.388	32.920	1.00	26.11	N
ATOM	868	CA	PHE	A	115	30.741	48.694	33.555	1.00	27.02	C
ATOM	869	C	PHE	A	115	29.579	48.772	34.542	1.00	26.62	C
ATOM	870	O	PHE	A	115	29.754	49.149	35.700	1.00	25.93	O
ATOM	871	CB	PHE	A	115	30.556	49.794	32.521	1.00	26.88	C
ATOM	872	CG	PHE	A	115	30.456	51.163	33.128	1.00	30.78	C
ATOM	873	CD1	PHE	A	115	31.591	51.970	33.254	1.00	30.44	C
ATOM	874	CD2	PHE	A	115	29.236	51.635	33.616	1.00	30.33	C
ATOM	875	CE1	PHE	A	115	31.509	53.230	33.857	1.00	29.53	C
ATOM	876	CE2	PHE	A	115	29.143	52.891	34.221	1.00	31.72	C
ATOM	877	CZ	PHE	A	115	30.284	53.691	34.341	1.00	30.73	C
ATOM	878	N	PHE	A	116	28.385	48.424	34.083	1.00	26.41	N
ATOM	879	CA	PHE	A	116	27.225	48.499	34.950	1.00	24.93	C
ATOM	880	C	PHE	A	116	27.144	47.446	36.050	1.00	26.82	C

ATOM	881	O	PHE	A	116	26.349	47.561	36.985	1.00	26.48	O
ATOM	882	CB	PHE	A	116	25.972	48.548	34.093	1.00	21.48	C
ATOM	883	CG	PHE	A	116	25.814	49.857	33.376	1.00	22.31	C
ATOM	884	CD1	PHE	A	116	26.231	50.004	32.050	1.00	21.26	C
ATOM	885	CD2	PHE	A	116	25.298	50.972	34.048	1.00	19.11	C
ATOM	886	CE1	PHE	A	116	26.136	51.232	31.406	1.00	21.62	C
ATOM	887	CE2	PHE	A	116	25.201	52.210	33.409	1.00	18.12	C
ATOM	888	CZ	PHE	A	116	25.614	52.348	32.095	1.00	17.80	C
ATOM	889	N	ARG	A	117	28.000	46.436	35.958	1.00	29.44	N
ATOM	890	CA	ARG	A	117	28.061	45.400	36.979	1.00	31.66	C
ATOM	891	C	ARG	A	117	28.838	46.065	38.115	1.00	32.46	C
ATOM	892	O	ARG	A	117	28.516	45.900	39.294	1.00	32.67	O
ATOM	893	CB	ARG	A	117	28.832	44.194	36.438	1.00	35.82	C
ATOM	894	CG	ARG	A	117	28.651	42.903	37.210	1.00	39.66	C
ATOM	895	CD	ARG	A	117	28.987	41.725	36.308	1.00	43.82	C
ATOM	896	NE	ARG	A	117	30.354	41.798	35.792	1.00	47.67	N
ATOM	897	CZ	ARG	A	117	30.746	41.285	34.627	1.00	49.48	C
ATOM	898	NH1	ARG	A	117	29.878	40.660	33.842	1.00	50.53	N
ATOM	899	NH2	ARG	A	117	32.010	41.398	34.245	1.00	50.55	N
ATOM	900	N	ILE	A	118	29.867	46.821	37.737	1.00	29.93	N
ATOM	901	CA	ILE	A	118	30.689	47.549	38.694	1.00	29.90	C
ATOM	902	C	ILE	A	118	29.807	48.629	39.316	1.00	29.75	C
ATOM	903	O	ILE	A	118	29.908	48.929	40.503	1.00	29.74	O
ATOM	904	CB	ILE	A	118	31.892	48.211	37.989	1.00	28.84	C
ATOM	905	CG1	ILE	A	118	32.917	47.144	37.613	1.00	30.83	C
ATOM	906	CG2	ILE	A	118	32.513	49.279	38.881	1.00	26.59	C
ATOM	907	CD1	ILE	A	118	33.987	47.647	36.674	1.00	31.10	C
ATOM	908	N	PHE	A	119	28.931	49.203	38.501	1.00	30.34	N
ATOM	909	CA	PHE	A	119	28.010	50.233	38.959	1.00	31.08	C
ATOM	910	C	PHE	A	119	27.031	49.710	40.019	1.00	32.65	C
ATOM	911	O	PHE	A	119	26.774	50.371	41.027	1.00	31.33	O
ATOM	912	CB	PHE	A	119	27.208	50.772	37.776	1.00	31.48	C
ATOM	913	CG	PHE	A	119	26.095	51.693	38.176	1.00	32.42	C
ATOM	914	CD1	PHE	A	119	26.270	53.069	38.142	1.00	31.11	C
ATOM	915	CD2	PHE	A	119	24.878	51.181	38.625	1.00	31.66	C
ATOM	916	CE1	PHE	A	119	25.252	53.930	38.551	1.00	30.46	C
ATOM	917	CE2	PHE	A	119	23.862	52.027	39.034	1.00	33.26	C
ATOM	918	CZ	PHE	A	119	24.051	53.412	38.997	1.00	32.00	C
ATOM	919	N	ASN	A	120	26.465	48.532	39.769	1.00	33.86	N
ATOM	920	CA	ASN	A	120	25.497	47.933	40.684	1.00	32.06	C
ATOM	921	C	ASN	A	120	26.118	47.493	42.009	1.00	31.89	C
ATOM	922	O	ASN	A	120	25.499	47.628	43.066	1.00	27.46	O
ATOM	923	CB	ASN	A	120	24.813	46.740	40.009	1.00	32.78	C
ATOM	924	CG	ASN	A	120	23.845	47.164	38.909	1.00	33.81	C
ATOM	925	OD1	ASN	A	120	23.476	46.363	38.050	1.00	33.86	O
ATOM	926	ND2	ASN	A	120	23.419	48.420	38.944	1.00	35.07	N
ATOM	927	N	ARG	A	121	27.332	46.956	41.949	1.00	31.62	N
ATOM	928	CA	ARG	A	121	28.012	46.519	43.157	1.00	34.36	C
ATOM	929	C	ARG	A	121	28.363	47.722	44.023	1.00	35.61	C
ATOM	930	O	ARG	A	121	28.255	47.666	45.249	1.00	33.43	O
ATOM	931	CB	ARG	A	121	29.274	45.711	42.814	1.00	37.30	C
ATOM	932	CG	ARG	A	121	28.962	44.255	42.456	1.00	44.29	C
ATOM	933	CD	ARG	A	121	30.205	43.407	42.180	1.00	51.94	C
ATOM	934	NE	ARG	A	121	30.815	43.668	40.873	1.00	57.49	N
ATOM	935	CZ	ARG	A	121	31.775	42.916	40.334	1.00	61.41	C
ATOM	936	NH1	ARG	A	121	32.236	41.852	40.990	1.00	62.64	N
ATOM	937	NH2	ARG	A	121	32.275	43.216	39.137	1.00	62.08	N
ATOM	938	N	SER	A	122	28.768	48.816	43.384	1.00	36.07	N
ATOM	939	CA	SER	A	122	29.113	50.026	44.119	1.00	37.98	C
ATOM	940	C	SER	A	122	27.882	50.557	44.857	1.00	39.98	C
ATOM	941	O	SER	A	122	27.950	50.914	46.037	1.00	37.20	O
ATOM	942	CB	SER	A	122	29.647	51.086	43.155	1.00	38.15	C
ATOM	943	OG	SER	A	122	30.806	50.621	42.481	1.00	36.97	O

Table 4

ATOM	944	N	ILE	A	123	26.747	50.600	44.169	1.00	42.51	N
ATOM	945	CA	ILE	A	123	25.533	51.095	44.802	1.00	46.25	C
ATOM	946	C	ILE	A	123	24.993	50.111	45.829	1.00	47.13	C
ATOM	947	O	ILE	A	123	24.503	50.507	46.888	1.00	46.85	O
ATOM	948	CB	ILE	A	123	24.463	51.434	43.751	1.00	47.26	C
ATOM	949	CG1	ILE	A	123	24.838	52.765	43.090	1.00	50.91	C
ATOM	950	CG2	ILE	A	123	23.084	51.506	44.392	1.00	47.45	C
ATOM	951	CD1	ILE	A	123	23.836	53.277	42.098	1.00	54.97	C
ATOM	952	N	ASP	A	124	25.096	48.827	45.529	1.00	49.20	N
ATOM	953	CA	ASP	A	124	24.630	47.819	46.467	1.00	52.74	C
ATOM	954	C	ASP	A	124	25.502	47.921	47.717	1.00	54.58	C
ATOM	955	O	ASP	A	124	25.087	47.545	48.810	1.00	55.49	O
ATOM	956	CB	ASP	A	124	24.741	46.422	45.842	1.00	52.44	C
ATOM	957	CG	ASP	A	124	24.404	45.313	46.819	1.00	54.83	C
ATOM	958	OD1	ASP	A	124	23.274	45.302	47.361	1.00	55.33	O
ATOM	959	OD2	ASP	A	124	25.275	44.446	47.042	1.00	54.45	O
ATOM	960	N	ALA	A	125	26.707	48.455	47.550	1.00	57.11	N
ATOM	961	CA	ALA	A	125	27.642	48.602	48.660	1.00	60.02	C
ATOM	962	C	ALA	A	125	27.048	49.443	49.780	1.00	62.57	C
ATOM	963	O	ALA	A	125	27.347	49.220	50.950	1.00	61.70	O
ATOM	964	CB	ALA	A	125	28.947	49.222	48.179	1.00	58.07	C
ATOM	965	N	PHE	A	126	26.217	50.417	49.431	1.00	65.62	N
ATOM	966	CA	PHE	A	126	25.600	51.236	50.461	1.00	70.24	C
ATOM	967	C	PHE	A	126	24.527	50.415	51.154	1.00	73.56	C
ATOM	968	O	PHE	A	126	24.498	50.330	52.381	1.00	74.48	O
ATOM	969	CB	PHE	A	126	24.978	52.494	49.866	1.00	69.43	C
ATOM	970	CG	PHE	A	126	25.981	53.477	49.356	1.00	69.16	C
ATOM	971	CD1	PHE	A	126	26.601	53.285	48.127	1.00	69.83	C
ATOM	972	CD2	PHE	A	126	26.312	54.597	50.107	1.00	68.36	C
ATOM	973	CE1	PHE	A	126	27.539	54.200	47.649	1.00	70.13	C
ATOM	974	CE2	PHE	A	126	27.248	55.517	49.641	1.00	69.60	C
ATOM	975	CZ	PHE	A	126	27.863	55.319	48.410	1.00	70.07	C
ATOM	976	N	LYS	A	127	23.654	49.807	50.357	1.00	77.43	N
ATOM	977	CA	LYS	A	127	22.572	48.974	50.875	1.00	80.53	C
ATOM	978	C	LYS	A	127	22.998	48.235	52.138	1.00	82.15	C
ATOM	979	O	LYS	A	127	22.474	48.481	53.225	1.00	82.37	O
ATOM	980	CB	LYS	A	127	22.144	47.946	49.823	1.00	81.53	C
ATOM	981	CG	LYS	A	127	21.483	48.530	48.588	1.00	83.56	C
ATOM	982	CD	LYS	A	127	20.069	49.007	48.884	1.00	84.91	C
ATOM	983	CE	LYS	A	127	19.376	49.490	47.618	1.00	85.48	C
ATOM	984	NZ	LYS	A	127	17.966	49.903	47.871	1.00	86.48	N
ATOM	985	N	ASP	A	128	23.961	47.334	51.980	1.00	84.12	N
ATOM	986	CA	ASP	A	128	24.461	46.531	53.087	1.00	85.76	C
ATOM	987	C	ASP	A	128	25.830	47.036	53.547	1.00	86.14	C
ATOM	988	O	ASP	A	128	26.860	46.439	53.234	1.00	86.66	O
ATOM	989	CB	ASP	A	128	24.551	45.067	52.641	1.00	87.18	C
ATOM	990	CG	ASP	A	128	23.279	44.586	51.946	1.00	88.36	C
ATOM	991	OD1	ASP	A	128	22.226	44.474	52.614	1.00	87.93	O
ATOM	992	OD2	ASP	A	128	23.333	44.326	50.725	1.00	89.41	O
ATOM	993	N	PHE	A	129	25.834	48.134	54.297	1.00	86.40	N
ATOM	994	CA	PHE	A	129	27.075	48.730	54.780	1.00	87.11	C
ATOM	995	C	PHE	A	129	26.903	49.423	56.131	1.00	89.71	C
ATOM	996	O	PHE	A	129	26.196	50.427	56.232	1.00	90.14	O
ATOM	997	CB	PHE	A	129	27.583	49.737	53.745	1.00	84.15	C
ATOM	998	CG	PHE	A	129	28.741	50.573	54.213	1.00	81.11	C
ATOM	999	CD1	PHE	A	129	29.943	49.983	54.580	1.00	79.96	C
ATOM	1000	CD2	PHE	A	129	28.631	51.958	54.267	1.00	80.34	C
ATOM	1001	CE1	PHE	A	129	31.025	50.764	54.994	1.00	79.71	C
ATOM	1002	CE2	PHE	A	129	29.705	52.747	54.678	1.00	78.88	C
ATOM	1003	CZ	PHE	A	129	30.903	52.150	55.042	1.00	78.87	C
ATOM	1004	N	VAL	A	130	27.557	48.889	57.162	1.00	92.58	N
ATOM	1005	CA	VAL	A	130	27.481	49.464	58.504	1.00	95.55	C
ATOM	1006	C	VAL	A	130	28.826	49.438	59.224	1.00	97.26	C

Table 4

ATOM	1007	O	VAL	A	130	29.171	50.375	59.945	1.00	97.26	O
ATOM	1008	CB	VAL	A	130	26.460	48.717	59.389	1.00	95.85	C
ATOM	1009	CG1	VAL	A	130	25.068	48.824	58.786	1.00	96.51	C
ATOM	1010	CG2	VAL	A	130	26.872	47.262	59.543	1.00	96.16	C
ATOM	1011	N	VAL	A	131	29.579	48.360	59.029	1.00	99.84	N
ATOM	1012	CA	VAL	A	131	30.882	48.210	59.668	1.00	102.46	C
ATOM	1013	C	VAL	A	131	32.028	48.784	58.836	1.00	103.49	C
ATOM	1014	O	VAL	A	131	32.706	48.060	58.104	1.00	103.21	O
ATOM	1015	CB	VAL	A	131	31.184	46.719	59.985	1.00	102.88	C
ATOM	1016	CG1	VAL	A	131	30.277	46.235	61.104	1.00	103.34	C
ATOM	1017	CG2	VAL	A	131	30.980	45.861	58.743	1.00	103.19	C
ATOM	1018	N	ALA	A	132	32.239	50.091	58.957	1.00	105.08	N
ATOM	1019	CA	ALA	A	132	33.305	50.763	58.226	1.00	106.69	C
ATOM	1020	C	ALA	A	132	34.662	50.287	58.740	1.00	107.70	C
ATOM	1021	O	ALA	A	132	35.053	49.142	58.505	1.00	108.08	O
ATOM	1022	CB	ALA	A	132	33.179	52.273	58.390	1.00	107.04	C
ATOM	1023	N	SER	A	133	35.374	51.162	59.443	1.00	108.41	N
ATOM	1024	CA	SER	A	133	36.683	50.814	59.985	1.00	108.93	C
ATOM	1025	C	SER	A	133	36.553	49.949	61.233	1.00	109.08	C
ATOM	1026	O	SER	A	133	37.146	48.873	61.316	1.00	109.42	O
ATOM	1027	CB	SER	A	133	37.474	52.080	60.319	1.00	109.04	C
ATOM	1028	OG	SER	A	133	37.762	52.822	59.149	1.00	109.34	O
ATOM	1029	N	ASP	A	137	41.268	48.968	58.587	1.00	83.95	N
ATOM	1030	CA	ASP	A	137	42.374	49.562	57.843	1.00	83.77	C
ATOM	1031	C	ASP	A	137	42.267	49.218	56.364	1.00	81.65	C
ATOM	1032	O	ASP	A	137	41.504	48.332	55.981	1.00	81.87	O
ATOM	1033	CB	ASP	A	137	43.717	49.065	58.394	1.00	86.05	C
ATOM	1034	CG	ASP	A	137	43.883	47.557	58.272	1.00	88.47	C
ATOM	1035	OD1	ASP	A	137	43.812	47.033	57.138	1.00	88.58	O
ATOM	1036	OD2	ASP	A	137	44.091	46.894	59.313	1.00	89.29	O
ATOM	1037	N	CYS	A	138	43.040	49.917	55.538	1.00	78.93	N
ATOM	1038	CA	CYS	A	138	43.023	49.683	54.096	1.00	76.20	C
ATOM	1039	C	CYS	A	138	44.422	49.466	53.512	1.00	77.44	C
ATOM	1040	O	CYS	A	138	44.569	49.241	52.307	1.00	77.09	O
ATOM	1041	CB	CYS	A	138	42.353	50.862	53.382	1.00	70.43	C
ATOM	1042	SG	CYS	A	138	40.648	51.212	53.925	1.00	63.65	S
ATOM	1043	N	VAL	A	139	45.439	49.536	54.370	1.00	78.37	N
ATOM	1044	CA	VAL	A	139	46.833	49.358	53.962	1.00	78.39	C
ATOM	1045	C	VAL	A	139	47.356	50.580	53.213	1.00	78.35	C
ATOM	1046	O	VAL	A	139	47.151	50.719	52.007	1.00	78.45	O
ATOM	1047	CB	VAL	A	139	47.005	48.108	53.067	1.00	78.28	C
ATOM	1048	CG1	VAL	A	139	48.422	48.043	52.523	1.00	79.62	C
ATOM	1049	CG2	VAL	A	139	46.692	46.856	53.867	1.00	78.33	C
TER	1050		VAL	A	139						
ATOM	1051	N	GLY	B	202	5.074	53.926	-9.864	1.00	55.94	N
ATOM	1052	CA	GLY	B	202	5.956	53.732	-8.727	1.00	56.16	C
ATOM	1053	C	GLY	B	202	7.260	53.075	-9.131	1.00	56.05	C
ATOM	1054	O	GLY	B	202	7.265	52.063	-9.833	1.00	55.94	O
ATOM	1055	N	ILE	B	203	8.373	53.652	-8.692	1.00	56.92	N
ATOM	1056	CA	ILE	B	203	9.686	53.106	-9.017	1.00	57.39	C
ATOM	1057	C	ILE	B	203	10.204	52.286	-7.842	1.00	59.41	C
ATOM	1058	O	ILE	B	203	10.614	52.862	-6.828	1.00	60.09	O
ATOM	1059	CB	ILE	B	203	10.706	54.226	-9.298	1.00	56.02	C
ATOM	1060	CG1	ILE	B	203	10.124	55.231	-10.295	1.00	55.36	C
ATOM	1061	CG2	ILE	B	203	12.004	53.619	-9.838	1.00	55.71	C
ATOM	1062	CD1	ILE	B	203	11.049	56.410	-10.594	1.00	53.98	C
ATOM	1063	N	CYS	B	204	10.192	50.957	-7.978	1.00	60.84	N
ATOM	1064	CA	CYS	B	204	10.667	50.061	-6.915	1.00	62.54	C
ATOM	1065	C	CYS	B	204	10.340	50.704	-5.563	1.00	61.09	C
ATOM	1066	O	CYS	B	204	11.195	50.815	-4.683	1.00	61.84	O
ATOM	1067	CB	CYS	B	204	12.191	49.818	-7.068	1.00	66.33	C
ATOM	1068	SG	CYS	B	204	13.033	48.997	-5.663	1.00	73.54	S
ATOM	1069	N	ARG	B	205	9.092	51.148	-5.423	1.00	59.31	N

Table 4

ATOM	1070	CA	ARG	B	205	8.623	51.799	-4.200	1.00	57.61	C
ATOM	1071	C	ARG	B	205	7.697	50.895	-3.390	1.00	58.14	C
ATOM	1072	O	ARG	B	205	6.770	51.363	-2.723	1.00	58.84	O
ATOM	1073	CB	ARG	B	205	7.897	53.103	-4.548	1.00	55.04	C
ATOM	1074	CG	ARG	B	205	8.829	54.255	-4.882	1.00	53.30	C
ATOM	1075	CD	ARG	B	205	9.663	54.623	-3.662	1.00	51.85	C
ATOM	1076	NE	ARG	B	205	10.694	55.614	-3.959	1.00	51.10	N
ATOM	1077	CZ	ARG	B	205	10.455	56.878	-4.304	1.00	52.18	C
ATOM	1078	NH1	ARG	B	205	9.207	57.326	-4.402	1.00	50.83	N
ATOM	1079	NH2	ARG	B	205	11.470	57.699	-4.549	1.00	51.90	N
ATOM	1080	N	ASN	B	206	7.963	49.597	-3.457	1.00	57.68	N
ATOM	1081	CA	ASN	B	206	7.177	48.600	-2.747	1.00	57.99	C
ATOM	1082	C	ASN	B	206	7.799	48.464	-1.372	1.00	58.60	C
ATOM	1083	O	ASN	B	206	8.941	48.009	-1.256	1.00	59.53	O
ATOM	1084	CB	ASN	B	206	7.265	47.275	-3.490	1.00	58.87	C
ATOM	1085	CG	ASN	B	206	7.246	47.465	-4.991	1.00	60.42	C
ATOM	1086	OD1	ASN	B	206	6.220	47.837	-5.568	1.00	60.92	O
ATOM	1087	ND2	ASN	B	206	8.393	47.234	-5.634	1.00	61.57	N
ATOM	1088	N	ARG	B	207	7.054	48.859	-0.340	1.00	57.82	N
ATOM	1089	CA	ARG	B	207	7.544	48.808	1.037	1.00	57.03	C
ATOM	1090	C	ARG	B	207	8.912	49.498	1.053	1.00	58.08	C
ATOM	1091	O	ARG	B	207	9.773	49.210	1.894	1.00	57.11	O
ATOM	1092	CB	ARG	B	207	7.649	47.346	1.521	1.00	55.63	C
ATOM	1093	CG	ARG	B	207	8.750	46.525	0.856	1.00	52.82	C
ATOM	1094	CD	ARG	B	207	8.631	45.020	1.100	1.00	52.16	C
ATOM	1095	NE	ARG	B	207	8.902	44.625	2.480	1.00	49.34	N
ATOM	1096	CZ	ARG	B	207	9.331	43.414	2.827	1.00	50.30	C
ATOM	1097	NH1	ARG	B	207	9.544	42.494	1.892	1.00	51.49	N
ATOM	1098	NH2	ARG	B	207	9.533	43.112	4.104	1.00	51.05	N
ATOM	1099	N	VAL	B	208	9.089	50.422	0.107	1.00	58.69	N
ATOM	1100	CA	VAL	B	208	10.338	51.161	-0.043	1.00	59.57	C
ATOM	1101	C	VAL	B	208	10.269	52.566	0.556	1.00	60.47	C
ATOM	1102	O	VAL	B	208	10.764	53.535	-0.031	1.00	59.70	O
ATOM	1103	CB	VAL	B	208	10.732	51.256	-1.535	1.00	58.68	C
ATOM	1104	CG1	VAL	B	208	12.100	51.912	-1.687	1.00	56.09	C
ATOM	1105	CG2	VAL	B	208	10.752	49.864	-2.142	1.00	56.94	C
ATOM	1106	N	THR	B	209	9.648	52.674	1.727	1.00	61.79	N
ATOM	1107	CA	THR	B	209	9.543	53.957	2.411	1.00	64.19	C
ATOM	1108	C	THR	B	209	10.441	53.909	3.638	1.00	65.48	C
ATOM	1109	O	THR	B	209	10.082	53.327	4.666	1.00	66.03	O
ATOM	1110	CB	THR	B	209	8.096	54.249	2.850	1.00	64.54	C
ATOM	1111	OG1	THR	B	209	7.258	54.339	1.691	1.00	66.58	O
ATOM	1112	CG2	THR	B	209	8.025	55.563	3.619	1.00	64.63	C
ATOM	1113	N	ASN	B	210	11.616	54.519	3.514	1.00	67.03	N
ATOM	1114	CA	ASN	B	210	12.600	54.555	4.592	1.00	68.22	C
ATOM	1115	C	ASN	B	210	12.085	55.139	5.907	1.00	69.19	C
ATOM	1116	O	ASN	B	210	12.135	54.478	6.948	1.00	69.69	O
ATOM	1117	CB	ASN	B	210	13.836	55.330	4.132	1.00	67.77	C
ATOM	1118	CG	ASN	B	210	14.748	55.710	5.280	1.00	68.67	C
ATOM	1119	OD1	ASN	B	210	14.953	54.931	6.212	1.00	67.36	O
ATOM	1120	ND2	ASN	B	210	15.312	56.913	5.214	1.00	69.95	N
ATOM	1121	N	ASN	B	211	11.599	56.376	5.862	1.00	69.70	N
ATOM	1122	CA	ASN	B	211	11.089	57.040	7.059	1.00	69.97	C
ATOM	1123	C	ASN	B	211	12.224	57.278	8.050	1.00	69.52	C
ATOM	1124	O	ASN	B	211	12.468	56.470	8.950	1.00	69.57	O
ATOM	1125	CB	ASN	B	211	10.000	56.188	7.707	1.00	70.79	C
ATOM	1126	CG	ASN	B	211	8.873	55.870	6.750	1.00	71.27	C
ATOM	1127	OD1	ASN	B	211	8.127	56.757	6.334	1.00	71.14	O
ATOM	1128	ND2	ASN	B	211	8.751	54.601	6.385	1.00	71.65	N
ATOM	1129	N	VAL	B	212	12.914	58.398	7.867	1.00	68.75	N
ATOM	1130	CA	VAL	B	212	14.036	58.772	8.719	1.00	67.00	C
ATOM	1131	C	VAL	B	212	13.647	59.074	10.168	1.00	65.19	C
ATOM	1132	O	VAL	B	212	14.513	59.328	11.001	1.00	63.87	O

Table 4

ATOM	1133	CB	VAL	B	212	14.785	59.994	8.133	1.00	67.35	C
ATOM	1134	CG1	VAL	B	212	15.791	59.537	7.087	1.00	67.33	C
ATOM	1135	CG2	VAL	B	212	13.789	60.957	7.503	1.00	66.47	C
ATOM	1136	N	LYS	B	213	12.350	59.049	10.465	1.00	63.78	N
ATOM	1137	CA	LYS	B	213	11.880	59.307	11.827	1.00	61.90	C
ATOM	1138	C	LYS	B	213	12.570	58.335	12.778	1.00	59.48	C
ATOM	1139	O	LYS	B	213	13.009	58.715	13.866	1.00	58.25	O
ATOM	1140	CB	LYS	B	213	10.360	59.119	11.922	1.00	63.24	C
ATOM	1141	CG	LYS	B	213	9.551	60.117	11.096	1.00	66.28	C
ATOM	1142	CD	LYS	B	213	8.053	59.861	11.206	1.00	66.69	C
ATOM	1143	CE	LYS	B	213	7.264	60.822	10.327	1.00	66.77	C
ATOM	1144	NZ	LYS	B	213	5.829	60.439	10.227	1.00	66.50	N
ATOM	1145	N	ASP	B	214	12.664	57.079	12.352	1.00	56.30	N
ATOM	1146	CA	ASP	B	214	13.302	56.043	13.152	1.00	53.09	C
ATOM	1147	C	ASP	B	214	14.816	56.184	13.114	1.00	49.43	C
ATOM	1148	O	ASP	B	214	15.497	55.934	14.107	1.00	48.27	O
ATOM	1149	CB	ASP	B	214	12.897	54.660	12.642	1.00	55.83	C
ATOM	1150	CG	ASP	B	214	11.399	54.413	12.750	1.00	57.66	C
ATOM	1151	OD1	ASP	B	214	10.834	54.665	13.838	1.00	57.31	O
ATOM	1152	OD2	ASP	B	214	10.793	53.961	11.751	1.00	58.37	O
ATOM	1153	N	VAL	B	215	15.338	56.595	11.966	1.00	45.60	N
ATOM	1154	CA	VAL	B	215	16.770	56.767	11.807	1.00	44.22	C
ATOM	1155	C	VAL	B	215	17.346	57.816	12.758	1.00	43.86	C
ATOM	1156	O	VAL	B	215	18.345	57.562	13.430	1.00	44.52	O
ATOM	1157	CB	VAL	B	215	17.117	57.143	10.360	1.00	43.83	C
ATOM	1158	CG1	VAL	B	215	18.617	57.350	10.213	1.00	44.99	C
ATOM	1159	CG2	VAL	B	215	16.657	56.041	9.429	1.00	46.16	C
ATOM	1160	N	THR	B	216	16.714	58.984	12.835	1.00	42.82	N
ATOM	1161	CA	THR	B	216	17.217	60.035	13.712	1.00	41.68	C
ATOM	1162	C	THR	B	216	17.180	59.558	15.155	1.00	40.38	C
ATOM	1163	O	THR	B	216	18.121	59.782	15.919	1.00	40.92	O
ATOM	1164	CB	THR	B	216	16.390	61.352	13.591	1.00	41.64	C
ATOM	1165	OG1	THR	B	216	15.206	61.258	14.387	1.00	42.85	O
ATOM	1166	CG2	THR	B	216	15.992	61.603	12.149	1.00	40.73	C
ATOM	1167	N	LYS	B	217	16.090	58.892	15.520	1.00	39.71	N
ATOM	1168	CA	LYS	B	217	15.932	58.371	16.871	1.00	38.63	C
ATOM	1169	C	LYS	B	217	17.064	57.411	17.236	1.00	35.12	C
ATOM	1170	O	LYS	B	217	17.544	57.413	18.369	1.00	32.67	O
ATOM	1171	CB	LYS	B	217	14.590	57.646	17.004	1.00	42.48	C
ATOM	1172	CG	LYS	B	217	13.393	58.572	16.969	1.00	48.85	C
ATOM	1173	CD	LYS	B	217	12.093	57.817	17.224	1.00	50.93	C
ATOM	1174	CE	LYS	B	217	10.903	58.768	17.218	1.00	52.56	C
ATOM	1175	NZ	LYS	B	217	9.633	58.065	17.555	1.00	53.57	N
ATOM	1176	N	LEU	B	218	17.477	56.592	16.271	1.00	32.67	N
ATOM	1177	CA	LEU	B	218	18.551	55.622	16.482	1.00	32.18	C
ATOM	1178	C	LEU	B	218	19.886	56.328	16.639	1.00	31.65	C
ATOM	1179	O	LEU	B	218	20.659	56.006	17.536	1.00	30.79	O
ATOM	1180	CB	LEU	B	218	18.638	54.648	15.306	1.00	30.41	C
ATOM	1181	CG	LEU	B	218	19.718	53.570	15.339	1.00	26.12	C
ATOM	1182	CD1	LEU	B	218	19.499	52.659	16.520	1.00	26.45	C
ATOM	1183	CD2	LEU	B	218	19.671	52.771	14.039	1.00	28.84	C
ATOM	1184	N	VAL	B	219	20.166	57.280	15.757	1.00	31.46	N
ATOM	1185	CA	VAL	B	219	21.417	58.015	15.853	1.00	32.60	C
ATOM	1186	C	VAL	B	219	21.466	58.673	17.242	1.00	32.42	C
ATOM	1187	O	VAL	B	219	22.508	58.701	17.893	1.00	32.49	O
ATOM	1188	CB	VAL	B	219	21.507	59.077	14.737	1.00	35.95	C
ATOM	1189	CG1	VAL	B	219	22.780	59.917	14.893	1.00	37.54	C
ATOM	1190	CG2	VAL	B	219	21.497	58.385	13.379	1.00	35.28	C
ATOM	1191	N	ALA	B	220	20.318	59.171	17.691	1.00	30.69	N
ATOM	1192	CA	ALA	B	220	20.186	59.809	19.002	1.00	31.19	C
ATOM	1193	C	ALA	B	220	20.382	58.804	20.140	1.00	31.91	C
ATOM	1194	O	ALA	B	220	20.742	59.174	21.265	1.00	30.98	O
ATOM	1195	CB	ALA	B	220	18.801	60.440	19.125	1.00	28.27	C

ATOM	1196	N	ASN	B	221	20.136	57.531	19.848	1.00	30.80	N
ATOM	1197	CA	ASN	B	221	20.261	56.498	20.864	1.00	31.97	C
ATOM	1198	C	ASN	B	221	21.549	55.694	20.723	1.00	31.15	C
ATOM	1199	O	ASN	B	221	21.739	54.673	21.377	1.00	30.13	O
ATOM	1200	CB	ASN	B	221	19.055	55.578	20.800	1.00	33.04	C
ATOM	1201	CG	ASN	B	221	18.673	55.058	22.142	1.00	37.25	C
ATOM	1202	OD1	ASN	B	221	18.517	55.829	23.087	1.00	38.33	O
ATOM	1203	ND2	ASN	B	221	18.514	53.743	22.249	1.00	39.86	N
ATOM	1204	N	LEU	B	222	22.425	56.178	19.856	1.00	30.64	N
ATOM	1205	CA	LEU	B	222	23.709	55.557	19.609	1.00	31.59	C
ATOM	1206	C	LEU	B	222	24.774	56.559	20.047	1.00	33.54	C
ATOM	1207	O	LEU	B	222	24.679	57.753	19.748	1.00	34.13	O
ATOM	1208	CB	LEU	B	222	23.858	55.266	18.118	1.00	31.84	C
ATOM	1209	CG	LEU	B	222	23.960	53.842	17.562	1.00	32.43	C
ATOM	1210	CD1	LEU	B	222	23.326	52.794	18.478	1.00	29.84	C
ATOM	1211	CD2	LEU	B	222	23.292	53.866	16.202	1.00	31.79	C
ATOM	1212	N	PRO	B	223	25.785	56.100	20.789	1.00	34.21	N
ATOM	1213	CA	PRO	B	223	26.819	57.049	21.209	1.00	34.42	C
ATOM	1214	C	PRO	B	223	27.514	57.665	19.989	1.00	35.75	C
ATOM	1215	O	PRO	B	223	27.888	56.949	19.049	1.00	34.36	O
ATOM	1216	CB	PRO	B	223	27.759	56.190	22.062	1.00	34.97	C
ATOM	1217	CG	PRO	B	223	27.518	54.775	21.556	1.00	35.82	C
ATOM	1218	CD	PRO	B	223	26.041	54.747	21.314	1.00	34.53	C
ATOM	1219	N	LYS	B	224	27.660	58.991	19.998	1.00	35.36	N
ATOM	1220	CA	LYS	B	224	28.309	59.711	18.897	1.00	38.46	C
ATOM	1221	C	LYS	B	224	29.735	59.206	18.791	1.00	38.58	C
ATOM	1222	O	LYS	B	224	30.443	59.479	17.829	1.00	39.76	O
ATOM	1223	CB	LYS	B	224	28.344	61.216	19.182	1.00	40.17	C
ATOM	1224	CG	LYS	B	224	27.035	61.801	19.670	1.00	44.14	C
ATOM	1225	CD	LYS	B	224	27.237	63.221	20.168	1.00	47.87	C
ATOM	1226	CE	LYS	B	224	25.980	63.755	20.843	1.00	51.17	C
ATOM	1227	NZ	LYS	B	224	26.174	65.142	21.361	1.00	52.59	N
ATOM	1228	N	ASP	B	225	30.132	58.468	19.815	1.00	40.23	N
ATOM	1229	CA	ASP	B	225	31.456	57.890	19.951	1.00	41.59	C
ATOM	1230	C	ASP	B	225	31.577	56.525	19.244	1.00	39.50	C
ATOM	1231	O	ASP	B	225	32.676	56.097	18.888	1.00	37.57	O
ATOM	1232	CB	ASP	B	225	31.726	57.712	21.448	1.00	44.75	C
ATOM	1233	CG	ASP	B	225	33.193	57.637	21.777	1.00	49.61	C
ATOM	1234	OD1	ASP	B	225	33.918	56.837	21.145	1.00	54.59	O
ATOM	1235	OD2	ASP	B	225	33.620	58.376	22.687	1.00	52.53	O
ATOM	1236	N	TYR	B	226	30.448	55.847	19.045	1.00	37.50	N
ATOM	1237	CA	TYR	B	226	30.445	54.514	18.442	1.00	36.48	C
ATOM	1238	C	TYR	B	226	30.892	54.451	16.991	1.00	35.68	C
ATOM	1239	O	TYR	B	226	30.374	55.169	16.143	1.00	35.54	O
ATOM	1240	CB	TYR	B	226	29.053	53.886	18.560	1.00	37.65	C
ATOM	1241	CG	TYR	B	226	29.037	52.396	18.288	1.00	38.60	C
ATOM	1242	CD1	TYR	B	226	28.039	51.822	17.500	1.00	37.85	C
ATOM	1243	CD2	TYR	B	226	30.007	51.556	18.842	1.00	37.09	C
ATOM	1244	CE1	TYR	B	226	28.005	50.440	17.270	1.00	38.79	C
ATOM	1245	CE2	TYR	B	226	29.986	50.179	18.621	1.00	39.41	C
ATOM	1246	CZ	TYR	B	226	28.981	49.626	17.833	1.00	38.69	C
ATOM	1247	OH	TYR	B	226	28.957	48.268	17.607	1.00	39.90	O
ATOM	1248	N	MET	B	227	31.838	53.562	16.706	1.00	36.10	N
ATOM	1249	CA	MET	B	227	32.356	53.406	15.351	1.00	37.09	C
ATOM	1250	C	MET	B	227	31.756	52.198	14.641	1.00	36.12	C
ATOM	1251	O	MET	B	227	31.842	51.066	15.123	1.00	33.71	O
ATOM	1252	CB	MET	B	227	33.881	53.290	15.382	1.00	41.32	C
ATOM	1253	CG	MET	B	227	34.600	54.437	14.688	1.00	48.18	C
ATOM	1254	SD	MET	B	227	33.881	56.053	15.088	1.00	54.24	S
ATOM	1255	CE	MET	B	227	34.682	56.402	16.647	1.00	56.04	C
ATOM	1256	N	ILE	B	228	31.156	52.454	13.481	1.00	35.08	N
ATOM	1257	CA	ILE	B	228	30.521	51.416	12.683	1.00	33.44	C
ATOM	1258	C	ILE	B	228	31.320	51.080	11.425	1.00	33.56	C

ATOM	1259	O	ILE	B	228	31.733	51.971	10.687	1.00	32.95	O
ATOM	1260	CB	ILE	B	228	29.107	51.859	12.262	1.00	31.75	C
ATOM	1261	CG1	ILE	B	228	28.248	52.077	13.509	1.00	30.42	C
ATOM	1262	CG2	ILE	B	228	28.493	50.832	11.320	1.00	30.01	C
ATOM	1263	CD1	ILE	B	228	26.900	52.710	13.224	1.00	28.35	C
ATOM	1264	N	THR	B	229	31.513	49.789	11.172	1.00	33.75	N
ATOM	1265	CA	THR	B	229	32.257	49.355	9.993	1.00	35.22	C
ATOM	1266	C	THR	B	229	31.384	49.209	8.744	1.00	36.26	C
ATOM	1267	O	THR	B	229	30.273	48.666	8.791	1.00	34.96	O
ATOM	1268	CB	THR	B	229	32.970	48.018	10.248	1.00	36.26	C
ATOM	1269	OG1	THR	B	229	33.897	48.172	11.333	1.00	39.29	O
ATOM	1270	CG2	THR	B	229	33.718	47.566	8.995	1.00	35.93	C
ATOM	1271	N	LEU	B	230	31.910	49.692	7.624	1.00	35.74	N
ATOM	1272	CA	LEU	B	230	31.212	49.633	6.353	1.00	35.46	C
ATOM	1273	C	LEU	B	230	32.210	49.587	5.190	1.00	37.16	C
ATOM	1274	O	LEU	B	230	33.125	50.416	5.114	1.00	37.17	O
ATOM	1275	CB	LEU	B	230	30.297	50.859	6.212	1.00	33.47	C
ATOM	1276	CG	LEU	B	230	29.543	51.079	4.889	1.00	33.44	C
ATOM	1277	CD1	LEU	B	230	28.564	49.935	4.637	1.00	27.86	C
ATOM	1278	CD2	LEU	B	230	28.809	52.419	4.932	1.00	31.24	C
ATOM	1279	N	LYS	B	231	32.054	48.605	4.302	1.00	38.67	N
ATOM	1280	CA	LYS	B	231	32.927	48.512	3.134	1.00	41.23	C
ATOM	1281	C	LYS	B	231	32.424	49.588	2.183	1.00	42.27	C
ATOM	1282	O	LYS	B	231	31.504	49.364	1.398	1.00	41.26	O
ATOM	1283	CB	LYS	B	231	32.829	47.133	2.481	1.00	41.80	C
ATOM	1284	CG	LYS	B	231	33.541	46.035	3.257	1.00	45.00	C
ATOM	1285	CD	LYS	B	231	33.579	44.737	2.459	1.00	48.11	C
ATOM	1286	CE	LYS	B	231	34.274	43.619	3.231	1.00	50.40	C
ATOM	1287	NZ	LYS	B	231	33.580	43.304	4.511	1.00	51.63	N
ATOM	1288	N	TYR	B	232	33.043	50.760	2.283	1.00	44.81	N
ATOM	1289	CA	TYR	B	232	32.683	51.943	1.508	1.00	47.65	C
ATOM	1290	C	TYR	B	232	33.298	52.021	0.109	1.00	50.22	C
ATOM	1291	O	TYR	B	232	34.508	51.822	-0.063	1.00	50.37	O
ATOM	1292	CB	TYR	B	232	33.090	53.179	2.317	1.00	48.36	C
ATOM	1293	CG	TYR	B	232	32.681	54.521	1.748	1.00	50.47	C
ATOM	1294	CD1	TYR	B	232	31.438	55.084	2.048	1.00	51.76	C
ATOM	1295	CD2	TYR	B	232	33.564	55.261	0.962	1.00	51.08	C
ATOM	1296	CE1	TYR	B	232	31.088	56.361	1.584	1.00	50.40	C
ATOM	1297	CE2	TYR	B	232	33.226	56.534	0.492	1.00	50.25	C
ATOM	1298	CZ	TYR	B	232	31.992	57.079	0.809	1.00	51.25	C
ATOM	1299	OH	TYR	B	232	31.677	58.350	0.369	1.00	50.44	O
ATOM	1300	N	VAL	B	233	32.456	52.319	-0.883	1.00	51.48	N
ATOM	1301	CA	VAL	B	233	32.911	52.472	-2.265	1.00	53.29	C
ATOM	1302	C	VAL	B	233	33.562	53.856	-2.389	1.00	54.21	C
ATOM	1303	O	VAL	B	233	32.896	54.884	-2.255	1.00	54.14	O
ATOM	1304	CB	VAL	B	233	31.741	52.378	-3.272	1.00	53.48	C
ATOM	1305	CG1	VAL	B	233	32.276	52.433	-4.690	1.00	52.85	C
ATOM	1306	CG2	VAL	B	233	30.969	51.089	-3.060	1.00	54.00	C
ATOM	1307	N	PRO	B	234	34.876	53.888	-2.658	1.00	55.55	N
ATOM	1308	CA	PRO	B	234	35.736	55.064	-2.815	1.00	56.44	C
ATOM	1309	C	PRO	B	234	35.161	56.459	-3.101	1.00	57.04	C
ATOM	1310	O	PRO	B	234	35.372	57.379	-2.305	1.00	57.54	O
ATOM	1311	CB	PRO	B	234	36.720	54.606	-3.874	1.00	57.14	C
ATOM	1312	CG	PRO	B	234	36.989	53.204	-3.415	1.00	56.28	C
ATOM	1313	CD	PRO	B	234	35.595	52.676	-3.100	1.00	55.40	C
ATOM	1314	N	GLY	B	235	34.447	56.642	-4.208	1.00	56.12	N
ATOM	1315	CA	GLY	B	235	33.943	57.979	-4.490	1.00	54.89	C
ATOM	1316	C	GLY	B	235	32.469	58.134	-4.786	1.00	53.88	C
ATOM	1317	O	GLY	B	235	32.083	58.925	-5.646	1.00	55.02	O
ATOM	1318	N	MET	B	236	31.635	57.405	-4.062	1.00	53.22	N
ATOM	1319	CA	MET	B	236	30.200	57.471	-4.283	1.00	52.92	C
ATOM	1320	C	MET	B	236	29.595	58.845	-4.028	1.00	52.29	C
ATOM	1321	O	MET	B	236	28.406	59.054	-4.250	1.00	51.46	O

ATOM	1322	CB	MET	B	236	29.495	56.428	-3.419	1.00	53.98	C
ATOM	1323	CG	MET	B	236	29.893	56.458	-1.957	1.00	55.72	C
ATOM	1324	SD	MET	B	236	28.808	55.402	-0.984	1.00	58.44	S
ATOM	1325	CE	MET	B	236	27.500	56.579	-0.565	1.00	54.06	C
ATOM	1326	N	ASP	B	237	30.409	59.786	-3.567	1.00	53.17	N
ATOM	1327	CA	ASP	B	237	29.912	61.130	-3.294	1.00	53.05	C
ATOM	1328	C	ASP	B	237	29.905	62.043	-4.522	1.00	51.90	C
ATOM	1329	O	ASP	B	237	29.208	63.058	-4.529	1.00	52.18	O
ATOM	1330	CB	ASP	B	237	30.724	61.772	-2.168	1.00	54.57	C
ATOM	1331	CG	ASP	B	237	32.211	61.560	-2.333	1.00	56.22	C
ATOM	1332	OD1	ASP	B	237	32.628	60.389	-2.453	1.00	56.92	O
ATOM	1333	OD2	ASP	B	237	32.962	62.557	-2.336	1.00	56.33	O
ATOM	1334	N	VAL	B	238	30.661	61.676	-5.559	1.00	49.93	N
ATOM	1335	CA	VAL	B	238	30.725	62.476	-6.788	1.00	47.50	C
ATOM	1336	C	VAL	B	238	30.455	61.658	-8.047	1.00	46.36	C
ATOM	1337	O	VAL	B	238	30.350	62.204	-9.141	1.00	44.99	O
ATOM	1338	CB	VAL	B	238	32.105	63.155	-6.955	1.00	47.44	C
ATOM	1339	CG1	VAL	B	238	32.315	64.193	-5.855	1.00	46.51	C
ATOM	1340	CG2	VAL	B	238	33.209	62.103	-6.921	1.00	46.60	C
ATOM	1341	N	LEU	B	239	30.343	60.346	-7.886	1.00	45.32	N
ATOM	1342	CA	LEU	B	239	30.097	59.456	-9.009	1.00	44.11	C
ATOM	1343	C	LEU	B	239	28.614	59.154	-9.221	1.00	42.87	C
ATOM	1344	O	LEU	B	239	27.823	59.163	-8.275	1.00	41.17	O
ATOM	1345	CB	LEU	B	239	30.866	58.150	-8.797	1.00	45.39	C
ATOM	1346	CG	LEU	B	239	32.213	57.947	-9.500	1.00	47.31	C
ATOM	1347	CD1	LEU	B	239	32.895	59.280	-9.784	1.00	50.44	C
ATOM	1348	CD2	LEU	B	239	33.085	57.056	-8.633	1.00	47.46	C
ATOM	1349	N	PRO	B	240	28.211	58.909	-10.481	1.00	42.22	N
ATOM	1350	CA	PRO	B	240	26.802	58.602	-10.748	1.00	40.41	C
ATOM	1351	C	PRO	B	240	26.413	57.361	-9.947	1.00	38.81	C
ATOM	1352	O	PRO	B	240	27.230	56.461	-9.758	1.00	35.05	O
ATOM	1353	CB	PRO	B	240	26.768	58.385	-12.265	1.00	40.21	C
ATOM	1354	CG	PRO	B	240	28.185	58.015	-12.615	1.00	40.16	C
ATOM	1355	CD	PRO	B	240	28.993	58.931	-11.730	1.00	42.24	C
ATOM	1356	N	SER	B	241	25.170	57.328	-9.477	1.00	39.89	N
ATOM	1357	CA	SER	B	241	24.683	56.229	-8.653	1.00	41.17	C
ATOM	1358	C	SER	B	241	24.862	54.823	-9.217	1.00	41.84	C
ATOM	1359	O	SER	B	241	25.099	53.887	-8.459	1.00	40.78	O
ATOM	1360	CB	SER	B	241	23.211	56.456	-8.285	1.00	40.90	C
ATOM	1361	OG	SER	B	241	22.370	56.370	-9.418	1.00	41.89	O
ATOM	1362	N	HIS	B	242	24.769	54.662	-10.534	1.00	42.79	N
ATOM	1363	CA	HIS	B	242	24.915	53.329	-11.106	1.00	44.00	C
ATOM	1364	C	HIS	B	242	26.308	52.745	-10.861	1.00	44.18	C
ATOM	1365	O	HIS	B	242	26.528	51.548	-11.051	1.00	44.48	O
ATOM	1366	CB	HIS	B	242	24.609	53.337	-12.615	1.00	44.68	C
ATOM	1367	CG	HIS	B	242	25.728	53.856	-13.463	1.00	45.88	C
ATOM	1368	ND1	HIS	B	242	25.938	55.201	-13.682	1.00	45.63	N
ATOM	1369	CD2	HIS	B	242	26.734	53.210	-14.100	1.00	45.13	C
ATOM	1370	CE1	HIS	B	242	27.028	55.359	-14.413	1.00	45.31	C
ATOM	1371	NE2	HIS	B	242	27.529	54.167	-14.679	1.00	44.52	N
ATOM	1372	N	CYS	B	243	27.244	53.585	-10.436	1.00	44.41	N
ATOM	1373	CA	CYS	B	243	28.610	53.134	-10.180	1.00	46.06	C
ATOM	1374	C	CYS	B	243	28.830	52.503	-8.806	1.00	45.03	C
ATOM	1375	O	CYS	B	243	29.813	51.795	-8.607	1.00	45.32	O
ATOM	1376	CB	CYS	B	243	29.600	54.299	-10.302	1.00	50.08	C
ATOM	1377	SG	CYS	B	243	29.818	55.061	-11.942	1.00	54.23	S
ATOM	1378	N	TRP	B	244	27.930	52.751	-7.860	1.00	44.29	N
ATOM	1379	CA	TRP	B	244	28.119	52.237	-6.503	1.00	43.92	C
ATOM	1380	C	TRP	B	244	26.914	51.634	-5.792	1.00	44.54	C
ATOM	1381	O	TRP	B	244	27.070	50.819	-4.881	1.00	44.86	O
ATOM	1382	CB	TRP	B	244	28.656	53.356	-5.617	1.00	41.38	C
ATOM	1383	CG	TRP	B	244	27.859	54.654	-5.700	1.00	40.51	C
ATOM	1384	CD1	TRP	B	244	28.097	55.721	-6.539	1.00	39.35	C

Table 4

ATOM	1385	CD2	TRP	B	244	26.752	55.042	-4.872	1.00	38.13	C
ATOM	1386	NE1	TRP	B	244	27.213	56.743	-6.269	1.00	37.91	N
ATOM	1387	CE2	TRP	B	244	26.380	56.355	-5.254	1.00	37.29	C
ATOM	1388	CE3	TRP	B	244	26.040	54.409	-3.845	1.00	37.72	C
ATOM	1389	CZ2	TRP	B	244	25.334	57.042	-4.642	1.00	37.77	C
ATOM	1390	CZ3	TRP	B	244	24.994	55.096	-3.235	1.00	37.27	C
ATOM	1391	CH2	TRP	B	244	24.653	56.398	-3.635	1.00	39.15	C
ATOM	1392	N	ILE	B	245	25.727	52.053	-6.207	1.00	43.54	N
ATOM	1393	CA	ILE	B	245	24.472	51.626	-5.614	1.00	45.80	C
ATOM	1394	C	ILE	B	245	24.233	50.133	-5.326	1.00	45.86	C
ATOM	1395	O	ILE	B	245	23.612	49.797	-4.319	1.00	46.72	O
ATOM	1396	CB	ILE	B	245	23.280	52.184	-6.451	1.00	47.09	C
ATOM	1397	CG1	ILE	B	245	22.333	52.971	-5.541	1.00	47.92	C
ATOM	1398	CG2	ILE	B	245	22.551	51.062	-7.179	1.00	47.16	C
ATOM	1399	CD1	ILE	B	245	21.883	52.218	-4.318	1.00	46.52	C
ATOM	1400	N	SER	B	246	24.701	49.238	-6.187	1.00	45.14	N
ATOM	1401	CA	SER	B	246	24.467	47.816	-5.950	1.00	45.76	C
ATOM	1402	C	SER	B	246	25.338	47.305	-4.809	1.00	45.59	C
ATOM	1403	O	SER	B	246	24.867	46.612	-3.907	1.00	43.82	O
ATOM	1404	CB	SER	B	246	24.763	47.003	-7.207	1.00	45.52	C
ATOM	1405	OG	SER	B	246	26.162	46.838	-7.370	1.00	51.00	O
ATOM	1406	N	GLU	B	247	26.616	47.653	-4.864	1.00	45.29	N
ATOM	1407	CA	GLU	B	247	27.578	47.244	-3.853	1.00	45.41	C
ATOM	1408	C	GLU	B	247	27.260	47.850	-2.483	1.00	43.93	C
ATOM	1409	O	GLU	B	247	27.327	47.170	-1.460	1.00	44.47	O
ATOM	1410	CB	GLU	B	247	28.983	47.675	-4.285	1.00	46.51	C
ATOM	1411	CG	GLU	B	247	30.072	47.322	-3.295	1.00	50.56	C
ATOM	1412	CD	GLU	B	247	30.319	45.831	-3.220	1.00	52.10	C
ATOM	1413	OE1	GLU	B	247	31.108	45.396	-2.354	1.00	51.67	O
ATOM	1414	OE2	GLU	B	247	29.725	45.096	-4.037	1.00	54.23	O
ATOM	1415	N	MET	B	248	26.914	49.130	-2.474	1.00	40.71	N
ATOM	1416	CA	MET	B	248	26.621	49.826	-1.233	1.00	41.30	C
ATOM	1417	C	MET	B	248	25.356	49.309	-0.552	1.00	39.73	C
ATOM	1418	O	MET	B	248	25.319	49.149	0.670	1.00	39.87	O
ATOM	1419	CB	MET	B	248	26.513	51.332	-1.505	1.00	41.78	C
ATOM	1420	CG	MET	B	248	26.557	52.221	-0.264	1.00	43.87	C
ATOM	1421	SD	MET	B	248	28.138	52.280	0.660	1.00	43.67	S
ATOM	1422	CE	MET	B	248	29.247	51.363	-0.411	1.00	38.63	C
ATOM	1423	N	VAL	B	249	24.317	49.050	-1.336	1.00	37.21	N
ATOM	1424	CA	VAL	B	249	23.074	48.547	-0.776	1.00	35.20	C
ATOM	1425	C	VAL	B	249	23.379	47.212	-0.107	1.00	36.30	C
ATOM	1426	O	VAL	B	249	22.807	46.872	0.930	1.00	35.65	O
ATOM	1427	CB	VAL	B	249	22.011	48.392	-1.887	1.00	36.29	C
ATOM	1428	CG1	VAL	B	249	20.977	47.367	-1.512	1.00	36.41	C
ATOM	1429	CG2	VAL	B	249	21.322	49.722	-2.110	1.00	32.75	C
ATOM	1430	N	VAL	B	250	24.317	46.478	-0.693	1.00	35.39	N
ATOM	1431	CA	VAL	B	250	24.738	45.184	-0.175	1.00	35.29	C
ATOM	1432	C	VAL	B	250	25.599	45.302	1.088	1.00	35.84	C
ATOM	1433	O	VAL	B	250	25.484	44.487	2.004	1.00	35.78	O
ATOM	1434	CB	VAL	B	250	25.527	44.408	-1.244	1.00	33.99	C
ATOM	1435	CG1	VAL	B	250	26.122	43.136	-0.654	1.00	33.25	C
ATOM	1436	CG2	VAL	B	250	24.599	44.063	-2.403	1.00	35.34	C
ATOM	1437	N	GLN	B	251	26.455	46.318	1.135	1.00	34.16	N
ATOM	1438	CA	GLN	B	251	27.330	46.521	2.278	1.00	32.34	C
ATOM	1439	C	GLN	B	251	26.570	47.124	3.438	1.00	30.64	C
ATOM	1440	O	GLN	B	251	26.868	46.846	4.599	1.00	31.74	O
ATOM	1441	CB	GLN	B	251	28.508	47.422	1.895	1.00	33.40	C
ATOM	1442	CG	GLN	B	251	29.467	46.789	0.894	1.00	35.25	C
ATOM	1443	CD	GLN	B	251	30.008	45.442	1.359	1.00	37.38	C
ATOM	1444	OE1	GLN	B	251	30.213	45.215	2.555	1.00	38.82	O
ATOM	1445	NE2	GLN	B	251	30.263	44.550	0.410	1.00	37.16	N
ATOM	1446	N	LEU	B	252	25.592	47.962	3.131	1.00	29.22	N
ATOM	1447	CA	LEU	B	252	24.788	48.553	4.187	1.00	30.07	C

Table 4

ATOM	1448	C	LEU	B	252	24.074	47.411	4.910	1.00	30.49	C
ATOM	1449	O	LEU	B	252	24.083	47.338	6.137	1.00	31.62	O
ATOM	1450	CB	LEU	B	252	23.775	49.541	3.595	1.00	26.58	C
ATOM	1451	CG	LEU	B	252	24.396	50.889	3.162	1.00	29.74	C
ATOM	1452	CD1	LEU	B	252	23.367	51.781	2.452	1.00	25.72	C
ATOM	1453	CD2	LEU	B	252	24.940	51.602	4.403	1.00	28.99	C
ATOM	1454	N	SER	B	253	23.475	46.512	4.135	1.00	29.43	N
ATOM	1455	CA	SER	B	253	22.763	45.372	4.687	1.00	29.35	C
ATOM	1456	C	SER	B	253	23.689	44.541	5.575	1.00	29.60	C
ATOM	1457	O	SER	B	253	23.324	44.162	6.685	1.00	27.14	O
ATOM	1458	CB	SER	B	253	22.216	44.501	3.559	1.00	29.62	C
ATOM	1459	OG	SER	B	253	21.469	43.417	4.082	1.00	32.53	O
ATOM	1460	N	ASP	B	254	24.897	44.278	5.094	1.00	29.62	N
ATOM	1461	CA	ASP	B	254	25.847	43.494	5.871	1.00	31.92	C
ATOM	1462	C	ASP	B	254	26.192	44.203	7.192	1.00	31.13	C
ATOM	1463	O	ASP	B	254	26.277	43.575	8.248	1.00	25.96	O
ATOM	1464	CB	ASP	B	254	27.130	43.271	5.070	1.00	35.93	C
ATOM	1465	CG	ASP	B	254	28.066	42.273	5.737	1.00	41.42	C
ATOM	1466	OD1	ASP	B	254	29.303	42.391	5.568	1.00	43.83	O
ATOM	1467	OD2	ASP	B	254	27.559	41.356	6.423	1.00	46.70	O
ATOM	1468	N	SER	B	255	26.399	45.513	7.131	1.00	28.26	N
ATOM	1469	CA	SER	B	255	26.752	46.247	8.335	1.00	28.88	C
ATOM	1470	C	SER	B	255	25.616	46.261	9.357	1.00	28.38	C
ATOM	1471	O	SER	B	255	25.843	46.036	10.549	1.00	28.04	O
ATOM	1472	CB	SER	B	255	27.165	47.682	7.985	1.00	28.35	C
ATOM	1473	OG	SER	B	255	28.356	47.692	7.214	1.00	28.87	O
ATOM	1474	N	LEU	B	256	24.397	46.512	8.890	1.00	26.63	N
ATOM	1475	CA	LEU	B	256	23.257	46.563	9.787	1.00	26.15	C
ATOM	1476	C	LEU	B	256	22.955	45.218	10.407	1.00	26.03	C
ATOM	1477	O	LEU	B	256	22.582	45.138	11.572	1.00	26.78	O
ATOM	1478	CB	LEU	B	256	22.024	47.095	9.060	1.00	23.91	C
ATOM	1479	CG	LEU	B	256	22.081	48.604	8.804	1.00	25.22	C
ATOM	1480	CD1	LEU	B	256	20.923	49.019	7.915	1.00	25.03	C
ATOM	1481	CD2	LEU	B	256	22.038	49.358	10.134	1.00	23.13	C
ATOM	1482	N	THR	B	257	23.121	44.166	9.623	1.00	27.10	N
ATOM	1483	CA	THR	B	257	22.861	42.822	10.094	1.00	28.54	C
ATOM	1484	C	THR	B	257	23.806	42.465	11.227	1.00	27.76	C
ATOM	1485	O	THR	B	257	23.397	41.834	12.201	1.00	27.18	O
ATOM	1486	CB	THR	B	257	23.012	41.797	8.948	1.00	30.71	C
ATOM	1487	OG1	THR	B	257	22.062	42.103	7.916	1.00	30.14	O
ATOM	1488	CG2	THR	B	257	22.758	40.372	9.461	1.00	30.87	C
ATOM	1489	N	ASP	B	258	25.061	42.882	11.098	1.00	28.20	N
ATOM	1490	CA	ASP	B	258	26.078	42.619	12.112	1.00	30.16	C
ATOM	1491	C	ASP	B	258	25.849	43.377	13.414	1.00	29.71	C
ATOM	1492	O	ASP	B	258	26.229	42.901	14.485	1.00	28.76	O
ATOM	1493	CB	ASP	B	258	27.467	42.993	11.597	1.00	34.00	C
ATOM	1494	CG	ASP	B	258	27.970	42.046	10.554	1.00	38.03	C
ATOM	1495	OD1	ASP	B	258	27.752	40.827	10.720	1.00	40.72	O
ATOM	1496	OD2	ASP	B	258	28.598	42.521	9.576	1.00	43.37	O
ATOM	1497	N	LEU	B	259	25.265	44.565	13.318	1.00	29.27	N
ATOM	1498	CA	LEU	B	259	25.002	45.382	14.502	1.00	31.85	C
ATOM	1499	C	LEU	B	259	23.948	44.734	15.380	1.00	30.57	C
ATOM	1500	O	LEU	B	259	23.878	44.994	16.585	1.00	27.66	O
ATOM	1501	CB	LEU	B	259	24.521	46.784	14.106	1.00	34.32	C
ATOM	1502	CG	LEU	B	259	25.565	47.720	13.506	1.00	36.30	C
ATOM	1503	CD1	LEU	B	259	24.940	49.089	13.226	1.00	38.89	C
ATOM	1504	CD2	LEU	B	259	26.727	47.858	14.483	1.00	38.73	C
ATOM	1505	N	LEU	B	260	23.122	43.906	14.755	1.00	30.02	N
ATOM	1506	CA	LEU	B	260	22.060	43.202	15.456	1.00	33.18	C
ATOM	1507	C	LEU	B	260	22.669	42.436	16.621	1.00	33.45	C
ATOM	1508	O	LEU	B	260	22.136	42.424	17.728	1.00	34.54	O
ATOM	1509	CB	LEU	B	260	21.366	42.244	14.488	1.00	32.08	C
ATOM	1510	CG	LEU	B	260	19.867	42.456	14.273	1.00	35.36	C

ATOM	1511	CD1	LEU	B	260	19.477	43.920	14.465	1.00	29.63	C
ATOM	1512	CD2	LEU	B	260	19.513	41.959	12.882	1.00	33.62	C
ATOM	1513	N	ASP	B	261	23.807	41.813	16.346	1.00	35.20	N
ATOM	1514	CA	ASP	B	261	24.550	41.030	17.326	1.00	37.38	C
ATOM	1515	C	ASP	B	261	24.929	41.883	18.549	1.00	34.81	C
ATOM	1516	O	ASP	B	261	25.082	41.358	19.650	1.00	36.03	O
ATOM	1517	CB	ASP	B	261	25.834	40.495	16.665	1.00	40.33	C
ATOM	1518	CG	ASP	B	261	26.245	39.132	17.183	1.00	46.67	C
ATOM	1519	OD1	ASP	B	261	27.295	38.623	16.727	1.00	49.65	O
ATOM	1520	OD2	ASP	B	261	25.525	38.560	18.035	1.00	50.57	O
ATOM	1521	N	LYS	B	262	25.069	43.193	18.355	1.00	30.45	N
ATOM	1522	CA	LYS	B	262	25.479	44.082	19.442	1.00	28.46	C
ATOM	1523	C	LYS	B	262	24.379	44.578	20.367	1.00	26.76	C
ATOM	1524	O	LYS	B	262	24.654	45.301	21.320	1.00	25.35	O
ATOM	1525	CB	LYS	B	262	26.241	45.297	18.878	1.00	27.07	C
ATOM	1526	CG	LYS	B	262	27.357	44.951	17.908	1.00	26.01	C
ATOM	1527	CD	LYS	B	262	28.235	43.836	18.449	1.00	26.80	C
ATOM	1528	CE	LYS	B	262	29.377	43.499	17.490	1.00	31.35	C
ATOM	1529	NZ	LYS	B	262	28.856	43.052	16.172	1.00	35.54	N
ATOM	1530	N	PHE	B	263	23.135	44.209	20.094	1.00	27.38	N
ATOM	1531	CA	PHE	B	263	22.043	44.663	20.942	1.00	27.79	C
ATOM	1532	C	PHE	B	263	21.155	43.523	21.406	1.00	28.66	C
ATOM	1533	O	PHE	B	263	21.239	42.408	20.889	1.00	25.25	O
ATOM	1534	CB	PHE	B	263	21.207	45.721	20.217	1.00	27.15	C
ATOM	1535	CG	PHE	B	263	22.005	46.916	19.764	1.00	29.50	C
ATOM	1536	CD1	PHE	B	263	22.613	46.930	18.512	1.00	29.29	C
ATOM	1537	CD2	PHE	B	263	22.197	48.006	20.615	1.00	28.89	C
ATOM	1538	CE1	PHE	B	263	23.406	48.012	18.113	1.00	32.10	C
ATOM	1539	CE2	PHE	B	263	22.986	49.090	20.231	1.00	29.79	C
ATOM	1540	CZ	PHE	B	263	23.593	49.096	18.981	1.00	31.21	C
ATOM	1541	N	SER	B	264	20.323	43.813	22.405	1.00	29.66	N
ATOM	1542	CA	SER	B	264	19.401	42.825	22.946	1.00	33.35	C
ATOM	1543	C	SER	B	264	17.994	43.082	22.411	1.00	35.50	C
ATOM	1544	O	SER	B	264	17.558	44.231	22.303	1.00	35.16	O
ATOM	1545	CB	SER	B	264	19.413	42.875	24.474	1.00	33.43	C
ATOM	1546	OG	SER	B	264	18.310	42.178	25.024	1.00	34.18	O
ATOM	1547	N	ASN	B	265	17.306	41.998	22.066	1.00	38.20	N
ATOM	1548	CA	ASN	B	265	15.952	42.036	21.528	1.00	42.52	C
ATOM	1549	C	ASN	B	265	14.929	42.090	22.667	1.00	44.22	C
ATOM	1550	O	ASN	B	265	13.727	41.959	22.449	1.00	44.33	O
ATOM	1551	CB	ASN	B	265	15.734	40.791	20.648	1.00	47.43	C
ATOM	1552	CG	ASN	B	265	14.377	40.769	19.969	1.00	52.30	C
ATOM	1553	OD1	ASN	B	265	13.347	40.580	20.618	1.00	55.95	O
ATOM	1554	ND2	ASN	B	265	14.368	40.958	18.654	1.00	55.04	N
ATOM	1555	N	ILE	B	266	15.408	42.275	23.890	1.00	46.53	N
ATOM	1556	CA	ILE	B	266	14.512	42.366	25.037	1.00	50.41	C
ATOM	1557	C	ILE	B	266	14.555	43.783	25.583	1.00	51.79	C
ATOM	1558	O	ILE	B	266	15.475	44.151	26.313	1.00	53.00	O
ATOM	1559	CB	ILE	B	266	14.906	41.378	26.162	1.00	52.11	C
ATOM	1560	CG1	ILE	B	266	14.621	39.942	25.711	1.00	52.25	C
ATOM	1561	CG2	ILE	B	266	14.125	41.703	27.446	1.00	51.47	C
ATOM	1562	CD1	ILE	B	266	14.977	38.896	26.741	1.00	52.80	C
ATOM	1563	N	SER	B	267	13.554	44.575	25.220	1.00	52.82	N
ATOM	1564	CA	SER	B	267	13.479	45.960	25.655	1.00	53.92	C
ATOM	1565	C	SER	B	267	12.101	46.529	25.332	1.00	54.57	C
ATOM	1566	O	SER	B	267	11.650	46.470	24.184	1.00	55.28	O
ATOM	1567	CB	SER	B	267	14.566	46.780	24.944	1.00	53.43	C
ATOM	1568	OG	SER	B	267	14.486	48.159	25.265	1.00	53.30	O
ATOM	1569	N	GLU	B	268	11.427	47.063	26.346	1.00	54.63	N
ATOM	1570	CA	GLU	B	268	10.110	47.662	26.149	1.00	55.91	C
ATOM	1571	C	GLU	B	268	10.305	49.051	25.546	1.00	55.23	C
ATOM	1572	O	GLU	B	268	11.338	49.686	25.750	1.00	55.02	O
ATOM	1573	CB	GLU	B	268	9.365	47.811	27.483	1.00	57.62	C

ATOM	1574	CG	GLU	B	268	9.238	46.541	28.301	1.00	60.87	C
ATOM	1575	CD	GLU	B	268	8.565	46.781	29.645	1.00	63.06	C
ATOM	1576	OE1	GLU	B	268	9.020	47.675	30.391	1.00	63.52	O
ATOM	1577	OE2	GLU	B	268	7.584	46.072	29.960	1.00	65.17	O
ATOM	1578	N	GLY	B	269	9.307	49.520	24.808	1.00	55.14	N
ATOM	1579	CA	GLY	B	269	9.387	50.842	24.214	1.00	53.65	C
ATOM	1580	C	GLY	B	269	10.535	51.025	23.245	1.00	51.69	C
ATOM	1581	O	GLY	B	269	10.726	50.214	22.339	1.00	52.57	O
ATOM	1582	N	LEU	B	270	11.302	52.094	23.444	1.00	48.68	N
ATOM	1583	CA	LEU	B	270	12.434	52.417	22.578	1.00	46.00	C
ATOM	1584	C	LEU	B	270	13.481	51.300	22.540	1.00	43.42	C
ATOM	1585	O	LEU	B	270	14.198	51.074	23.524	1.00	43.72	O
ATOM	1586	CB	LEU	B	270	13.097	53.719	23.050	1.00	46.90	C
ATOM	1587	CG	LEU	B	270	13.922	54.527	22.034	1.00	48.10	C
ATOM	1588	CD1	LEU	B	270	14.701	55.614	22.781	1.00	48.00	C
ATOM	1589	CD2	LEU	B	270	14.885	53.621	21.261	1.00	49.29	C
ATOM	1590	N	SER	B	271	13.585	50.622	21.398	1.00	39.34	N
ATOM	1591	CA	SER	B	271	14.549	49.534	21.246	1.00	33.02	C
ATOM	1592	C	SER	B	271	15.455	49.723	20.043	1.00	29.95	C
ATOM	1593	O	SER	B	271	14.979	49.829	18.916	1.00	30.47	O
ATOM	1594	CB	SER	B	271	13.818	48.198	21.107	1.00	33.58	C
ATOM	1595	OG	SER	B	271	14.740	47.135	20.920	1.00	29.31	O
ATOM	1596	N	ASN	B	272	16.763	49.756	20.270	1.00	27.19	N
ATOM	1597	CA	ASN	B	272	17.689	49.906	19.155	1.00	26.28	C
ATOM	1598	C	ASN	B	272	17.677	48.657	18.270	1.00	24.35	C
ATOM	1599	O	ASN	B	272	17.806	48.761	17.047	1.00	24.38	O
ATOM	1600	CB	ASN	B	272	19.112	50.191	19.649	1.00	28.40	C
ATOM	1601	CG	ASN	B	272	19.314	51.656	20.074	1.00	31.26	C
ATOM	1602	OD1	ASN	B	272	18.490	52.525	19.775	1.00	29.59	O
ATOM	1603	ND2	ASN	B	272	20.422	51.927	20.763	1.00	27.16	N
ATOM	1604	N	TYR	B	273	17.526	47.480	18.879	1.00	22.77	N
ATOM	1605	CA	TYR	B	273	17.478	46.233	18.105	1.00	22.69	C
ATOM	1606	C	TYR	B	273	16.283	46.306	17.142	1.00	20.30	C
ATOM	1607	O	TYR	B	273	16.387	45.988	15.959	1.00	18.57	O
ATOM	1608	CB	TYR	B	273	17.305	45.005	19.029	1.00	19.03	C
ATOM	1609	CG	TYR	B	273	17.499	43.665	18.325	1.00	19.58	C
ATOM	1610	CD1	TYR	B	273	18.711	42.976	18.410	1.00	21.34	C
ATOM	1611	CD2	TYR	B	273	16.475	43.098	17.555	1.00	21.61	C
ATOM	1612	CE1	TYR	B	273	18.905	41.749	17.739	1.00	21.50	C
ATOM	1613	CE2	TYR	B	273	16.654	41.870	16.879	1.00	20.21	C
ATOM	1614	CZ	TYR	B	273	17.870	41.208	16.974	1.00	21.89	C
ATOM	1615	OH	TYR	B	273	18.072	40.025	16.282	1.00	24.18	O
ATOM	1616	N	SER	B	274	15.148	46.743	17.663	1.00	22.80	N
ATOM	1617	CA	SER	B	274	13.927	46.832	16.863	1.00	27.21	C
ATOM	1618	C	SER	B	274	14.050	47.772	15.667	1.00	27.36	C
ATOM	1619	O	SER	B	274	13.613	47.449	14.563	1.00	30.53	O
ATOM	1620	CB	SER	B	274	12.764	47.274	17.744	1.00	28.04	C
ATOM	1621	OG	SER	B	274	11.648	47.587	16.945	1.00	36.14	O
ATOM	1622	N	ILE	B	275	14.643	48.936	15.884	1.00	26.70	N
ATOM	1623	CA	ILE	B	275	14.807	49.898	14.807	1.00	25.74	C
ATOM	1624	C	ILE	B	275	15.759	49.382	13.737	1.00	28.05	C
ATOM	1625	O	ILE	B	275	15.490	49.521	12.544	1.00	30.55	O
ATOM	1626	CB	ILE	B	275	15.301	51.240	15.372	1.00	27.01	C
ATOM	1627	CG1	ILE	B	275	14.177	51.848	16.230	1.00	25.40	C
ATOM	1628	CG2	ILE	B	275	15.706	52.193	14.243	1.00	25.64	C
ATOM	1629	CD1	ILE	B	275	14.599	53.071	17.034	1.00	29.62	C
ATOM	1630	N	ILE	B	276	16.861	48.767	14.156	1.00	27.36	N
ATOM	1631	CA	ILE	B	276	17.828	48.242	13.210	1.00	26.58	C
ATOM	1632	C	ILE	B	276	17.194	47.141	12.367	1.00	28.05	C
ATOM	1633	O	ILE	B	276	17.449	47.048	11.158	1.00	26.42	O
ATOM	1634	CB	ILE	B	276	19.077	47.682	13.940	1.00	27.08	C
ATOM	1635	CG1	ILE	B	276	19.794	48.818	14.676	1.00	29.78	C
ATOM	1636	CG2	ILE	B	276	20.012	47.018	12.946	1.00	21.94	C

ATOM	1637	CD1	ILE	B	276	20.973	48.376	15.530	1.00	31.10	C
ATOM	1638	N	ASP	B	277	16.375	46.307	13.006	1.00	28.02	N
ATOM	1639	CA	ASP	B	277	15.697	45.216	12.308	1.00	31.09	C
ATOM	1640	C	ASP	B	277	14.875	45.762	11.134	1.00	31.45	C
ATOM	1641	O	ASP	B	277	14.986	45.272	10.013	1.00	32.87	O
ATOM	1642	CB	ASP	B	277	14.778	44.448	13.271	1.00	34.57	C
ATOM	1643	CG	ASP	B	277	13.996	43.344	12.575	1.00	36.69	C
ATOM	1644	OD1	ASP	B	277	14.621	42.396	12.063	1.00	37.70	O
ATOM	1645	OD2	ASP	B	277	12.751	43.427	12.526	1.00	42.12	O
ATOM	1646	N	LYS	B	278	14.054	46.775	11.394	1.00	31.81	N
ATOM	1647	CA	LYS	B	278	13.241	47.388	10.346	1.00	33.40	C
ATOM	1648	C	LYS	B	278	14.132	47.982	9.259	1.00	33.30	C
ATOM	1649	O	LYS	B	278	13.841	47.849	8.075	1.00	33.52	O
ATOM	1650	CB	LYS	B	278	12.348	48.484	10.938	1.00	34.87	C
ATOM	1651	CG	LYS	B	278	11.222	47.948	11.806	1.00	39.50	C
ATOM	1652	CD	LYS	B	278	10.764	48.949	12.865	1.00	44.74	C
ATOM	1653	CE	LYS	B	278	9.850	48.261	13.896	1.00	47.34	C
ATOM	1654	NZ	LYS	B	278	9.637	49.060	15.144	1.00	49.68	N
ATOM	1655	N	LEU	B	279	15.227	48.623	9.662	1.00	33.17	N
ATOM	1656	CA	LEU	B	279	16.136	49.219	8.694	1.00	33.76	C
ATOM	1657	C	LEU	B	279	16.735	48.144	7.801	1.00	35.27	C
ATOM	1658	O	LEU	B	279	16.949	48.367	6.611	1.00	35.16	O
ATOM	1659	CB	LEU	B	279	17.254	49.994	9.397	1.00	31.81	C
ATOM	1660	CG	LEU	B	279	16.830	51.213	10.221	1.00	31.76	C
ATOM	1661	CD1	LEU	B	279	18.076	51.978	10.657	1.00	27.74	C
ATOM	1662	CD2	LEU	B	279	15.910	52.117	9.396	1.00	27.79	C
ATOM	1663	N	VAL	B	280	17.011	46.981	8.384	1.00	36.33	N
ATOM	1664	CA	VAL	B	280	17.566	45.859	7.640	1.00	36.53	C
ATOM	1665	C	VAL	B	280	16.589	45.355	6.575	1.00	36.86	C
ATOM	1666	O	VAL	B	280	16.991	44.953	5.489	1.00	36.16	O
ATOM	1667	CB	VAL	B	280	17.903	44.688	8.585	1.00	39.05	C
ATOM	1668	CG1	VAL	B	280	18.312	43.460	7.775	1.00	40.46	C
ATOM	1669	CG2	VAL	B	280	19.018	45.094	9.527	1.00	37.37	C
ATOM	1670	N	ASN	B	281	15.298	45.380	6.884	1.00	37.81	N
ATOM	1671	CA	ASN	B	281	14.303	44.910	5.937	1.00	37.92	C
ATOM	1672	C	ASN	B	281	14.111	45.832	4.742	1.00	39.69	C
ATOM	1673	O	ASN	B	281	13.937	45.358	3.623	1.00	40.54	O
ATOM	1674	CB	ASN	B	281	12.968	44.680	6.638	1.00	36.79	C
ATOM	1675	CG	ASN	B	281	13.007	43.487	7.570	1.00	35.96	C
ATOM	1676	OD1	ASN	B	281	13.696	42.501	7.305	1.00	34.67	O
ATOM	1677	ND2	ASN	B	281	12.255	43.563	8.660	1.00	35.46	N
ATOM	1678	N	ILE	B	282	14.135	47.141	4.962	1.00	41.96	N
ATOM	1679	CA	ILE	B	282	13.977	48.063	3.844	1.00	43.76	C
ATOM	1680	C	ILE	B	282	15.178	47.930	2.908	1.00	43.59	C
ATOM	1681	O	ILE	B	282	15.023	47.878	1.684	1.00	42.87	O
ATOM	1682	CB	ILE	B	282	13.837	49.528	4.322	1.00	46.35	C
ATOM	1683	CG1	ILE	B	282	14.904	49.847	5.364	1.00	49.26	C
ATOM	1684	CG2	ILE	B	282	12.450	49.755	4.895	1.00	46.46	C
ATOM	1685	CD1	ILE	B	282	14.775	51.227	5.969	1.00	52.73	C
ATOM	1686	N	VAL	B	283	16.369	47.834	3.490	1.00	42.61	N
ATOM	1687	CA	VAL	B	283	17.591	47.701	2.707	1.00	44.18	C
ATOM	1688	C	VAL	B	283	17.683	46.332	2.039	1.00	45.95	C
ATOM	1689	O	VAL	B	283	18.330	46.180	1.005	1.00	44.64	O
ATOM	1690	CB	VAL	B	283	18.836	47.902	3.586	1.00	44.07	C
ATOM	1691	CG1	VAL	B	283	20.078	47.992	2.729	1.00	45.78	C
ATOM	1692	CG2	VAL	B	283	18.682	49.152	4.404	1.00	47.56	C
ATOM	1693	N	ASP	B	284	17.052	45.327	2.634	1.00	48.15	N
ATOM	1694	CA	ASP	B	284	17.088	43.999	2.043	1.00	50.89	C
ATOM	1695	C	ASP	B	284	16.085	43.925	0.905	1.00	51.42	C
ATOM	1696	O	ASP	B	284	16.235	43.124	-0.014	1.00	50.07	O
ATOM	1697	CB	ASP	B	284	16.816	42.928	3.102	1.00	52.73	C
ATOM	1698	CG	ASP	B	284	18.063	42.590	3.910	1.00	54.77	C
ATOM	1699	OD1	ASP	B	284	19.064	43.328	3.782	1.00	53.52	O

Table 4

ATOM	1700	OD2	ASP	B	284	18.048	41.596	4.671	1.00	56.89	O
ATOM	1701	N	ASP	B	285	15.065	44.773	0.962	1.00	53.52	N
ATOM	1702	CA	ASP	B	285	14.077	44.813	-0.103	1.00	56.78	C
ATOM	1703	C	ASP	B	285	14.748	45.412	-1.336	1.00	57.85	C
ATOM	1704	O	ASP	B	285	14.447	45.029	-2.466	1.00	57.90	O
ATOM	1705	CB	ASP	B	285	12.872	45.664	0.303	1.00	57.84	C
ATOM	1706	CG	ASP	B	285	11.864	44.888	1.126	1.00	60.65	C
ATOM	1707	OD1	ASP	B	285	11.413	43.820	0.658	1.00	62.40	O
ATOM	1708	OD2	ASP	B	285	11.515	45.344	2.235	1.00	62.92	O
ATOM	1709	N	LEU	B	286	15.669	46.345	-1.106	1.00	59.05	N
ATOM	1710	CA	LEU	B	286	16.389	46.993	-2.194	1.00	61.21	C
ATOM	1711	C	LEU	B	286	17.308	46.003	-2.903	1.00	62.73	C
ATOM	1712	O	LEU	B	286	17.385	45.991	-4.131	1.00	63.40	O
ATOM	1713	CB	LEU	B	286	17.215	48.172	-1.667	1.00	59.77	C
ATOM	1714	CG	LEU	B	286	16.469	49.304	-0.952	1.00	59.72	C
ATOM	1715	CD1	LEU	B	286	17.479	50.311	-0.430	1.00	60.06	C
ATOM	1716	CD2	LEU	B	286	15.485	49.975	-1.895	1.00	58.38	C
ATOM	1717	N	VAL	B	287	18.003	45.173	-2.128	1.00	65.19	N
ATOM	1718	CA	VAL	B	287	18.915	44.181	-2.695	1.00	67.52	C
ATOM	1719	C	VAL	B	287	18.151	43.272	-3.651	1.00	69.85	C
ATOM	1720	O	VAL	B	287	18.746	42.490	-4.390	1.00	70.28	O
ATOM	1721	CB	VAL	B	287	19.587	43.321	-1.586	1.00	66.53	C
ATOM	1722	CG1	VAL	B	287	20.507	42.285	-2.208	1.00	65.22	C
ATOM	1723	CG2	VAL	B	287	20.383	44.211	-0.647	1.00	64.95	C
ATOM	1724	N	GLU	B	288	16.826	43.387	-3.636	1.00	72.56	N
ATOM	1725	CA	GLU	B	288	15.985	42.594	-4.521	1.00	75.05	C
ATOM	1726	C	GLU	B	288	15.773	43.293	-5.863	1.00	76.15	C
ATOM	1727	O	GLU	B	288	15.887	42.654	-6.905	1.00	76.95	O
ATOM	1728	CB	GLU	B	288	14.631	42.303	-3.870	1.00	75.38	C
ATOM	1729	CG	GLU	B	288	14.703	41.368	-2.676	1.00	76.07	C
ATOM	1730	CD	GLU	B	288	13.334	40.869	-2.260	1.00	76.91	C
ATOM	1731	OE1	GLU	B	288	12.663	40.230	-3.100	1.00	76.61	O
ATOM	1732	OE2	GLU	B	288	12.928	41.116	-1.102	1.00	77.21	O
ATOM	1733	N	CYS	B	289	15.465	44.592	-5.847	1.00	77.68	N
ATOM	1734	CA	CYS	B	289	15.266	45.326	-7.102	1.00	79.66	C
ATOM	1735	C	CYS	B	289	16.567	45.273	-7.896	1.00	81.37	C
ATOM	1736	O	CYS	B	289	16.607	45.643	-9.069	1.00	82.35	O
ATOM	1737	CB	CYS	B	289	14.862	46.798	-6.853	1.00	78.42	C
ATOM	1738	SG	CYS	B	289	13.190	47.024	-6.149	1.00	78.81	S
ATOM	1739	N	VAL	B	290	17.626	44.802	-7.244	1.00	83.34	N
ATOM	1740	CA	VAL	B	290	18.939	44.678	-7.868	1.00	85.04	C
ATOM	1741	C	VAL	B	290	19.114	43.291	-8.477	1.00	86.93	C
ATOM	1742	O	VAL	B	290	19.836	43.121	-9.458	1.00	87.33	O
ATOM	1743	CB	VAL	B	290	20.068	44.912	-6.840	1.00	84.62	C
ATOM	1744	CG1	VAL	B	290	21.422	44.610	-7.465	1.00	84.22	C
ATOM	1745	CG2	VAL	B	290	20.027	46.347	-6.348	1.00	84.06	C
ATOM	1746	N	LYS	B	291	18.450	42.302	-7.888	1.00	89.27	N
ATOM	1747	CA	LYS	B	291	18.538	40.931	-8.375	1.00	91.52	C
ATOM	1748	C	LYS	B	291	18.122	40.793	-9.836	1.00	92.26	C
ATOM	1749	O	LYS	B	291	18.958	40.870	-10.737	1.00	92.64	O
ATOM	1750	CB	LYS	B	291	17.676	40.003	-7.518	1.00	92.27	C
ATOM	1751	CG	LYS	B	291	18.450	39.217	-6.475	1.00	93.39	C
ATOM	1752	CD	LYS	B	291	17.635	38.021	-6.007	1.00	94.40	C
ATOM	1753	CE	LYS	B	291	18.452	37.076	-5.146	1.00	93.52	C
ATOM	1754	NZ	LYS	B	291	17.667	35.850	-4.845	1.00	93.70	N
ATOM	1755	N	GLU	B	292	16.829	40.583	-10.061	1.00	93.06	N
ATOM	1756	CA	GLU	B	292	16.289	40.422	-11.407	1.00	93.90	C
ATOM	1757	C	GLU	B	292	16.822	41.477	-12.370	1.00	94.28	C
ATOM	1758	O	GLU	B	292	16.905	41.237	-13.575	1.00	94.59	O
ATOM	1759	CB	GLU	B	292	14.764	40.479	-11.366	1.00	93.97	C
ATOM	1760	N	ASN	B	293	17.180	42.639	-11.829	1.00	94.51	N
ATOM	1761	CA	ASN	B	293	17.700	43.752	-12.620	1.00	94.89	C
ATOM	1762	C	ASN	B	293	18.486	43.306	-13.847	1.00	95.25	C

ATOM	1763	O	ASN	B	293	19.547	42.691	-13.732	1.00	94.68	O
ATOM	1764	CB	ASN	B	293	18.569	44.647	-11.748	1.00	94.54	C
ATOM	1765	N	SER	B	294	17.947	43.622	-15.021	1.00	96.10	N
ATOM	1766	CA	SER	B	294	18.578	43.279	-16.291	1.00	96.82	C
ATOM	1767	C	SER	B	294	19.260	44.516	-16.862	1.00	97.43	C
ATOM	1768	O	SER	B	294	19.786	44.493	-17.976	1.00	97.54	O
ATOM	1769	CB	SER	B	294	17.534	42.760	-17.272	1.00	96.87	C
ATOM	1770	N	SER	B	295	19.234	45.599	-16.091	1.00	97.82	N
ATOM	1771	CA	SER	B	295	19.850	46.851	-16.505	1.00	98.14	C
ATOM	1772	C	SER	B	295	21.360	46.757	-16.330	1.00	98.75	C
ATOM	1773	O	SER	B	295	21.849	46.322	-15.287	1.00	98.85	O
ATOM	1774	CB	SER	B	295	19.297	48.007	-15.680	1.00	97.18	C
ATOM	1775	N	LYS	B	296	22.094	47.157	-17.361	1.00	99.70	N
ATOM	1776	CA	LYS	B	296	23.549	47.124	-17.320	1.00	100.08	C
ATOM	1777	C	LYS	B	296	24.090	48.545	-17.201	1.00	100.40	C
ATOM	1778	O	LYS	B	296	23.910	49.370	-18.099	1.00	100.26	O
ATOM	1779	CB	LYS	B	296	24.095	46.454	-18.577	1.00	100.16	C
ATOM	1780	N	ASP	B	297	24.747	48.826	-16.082	1.00	100.71	N
ATOM	1781	CA	ASP	B	297	25.315	50.143	-15.840	1.00	101.31	C
ATOM	1782	C	ASP	B	297	26.625	50.000	-15.070	1.00	101.82	C
ATOM	1783	O	ASP	B	297	27.622	50.650	-15.392	1.00	101.90	O
ATOM	1784	CB	ASP	B	297	24.327	50.997	-15.053	1.00	101.33	C
ATOM	1785	N	LEU	B	298	26.607	49.137	-14.058	1.00	102.10	N
ATOM	1786	CA	LEU	B	298	27.770	48.870	-13.217	1.00	102.11	C
ATOM	1787	C	LEU	B	298	27.299	48.176	-11.949	1.00	102.30	C
ATOM	1788	O	LEU	B	298	28.019	48.131	-10.952	1.00	102.51	O
ATOM	1789	CB	LEU	B	298	28.489	50.171	-12.863	1.00	102.08	C
ATOM	1790	N	LYS	B	299	26.081	47.641	-11.997	1.00	102.53	N
ATOM	1791	CA	LYS	B	299	25.492	46.946	-10.855	1.00	102.73	C
ATOM	1792	C	LYS	B	299	26.278	45.687	-10.495	1.00	103.02	C
ATOM	1793	O	LYS	B	299	25.780	44.568	-10.633	1.00	103.10	O
ATOM	1794	CB	LYS	B	299	24.039	46.591	-11.157	1.00	102.10	C
ATOM	1795	N	LYS	B	300	27.508	45.877	-10.030	1.00	103.14	N
ATOM	1796	CA	LYS	B	300	28.365	44.763	-9.650	1.00	103.42	C
ATOM	1797	C	LYS	B	300	29.427	45.224	-8.656	1.00	103.57	C
ATOM	1798	O	LYS	B	300	29.379	44.873	-7.475	1.00	103.46	O
ATOM	1799	CB	LYS	B	300	29.026	44.173	-10.887	1.00	103.35	C
ATOM	1800	N	SER	B	301	30.378	46.014	-9.149	1.00	103.66	N
ATOM	1801	CA	SER	B	301	31.474	46.548	-8.342	1.00	103.79	C
ATOM	1802	C	SER	B	301	32.583	45.521	-8.121	1.00	103.79	C
ATOM	1803	O	SER	B	301	33.224	45.505	-7.069	1.00	103.66	O
ATOM	1804	CB	SER	B	301	30.947	47.053	-6.996	1.00	103.60	C
ATOM	1805	N	PHE	B	302	32.805	44.670	-9.120	1.00	103.61	N
ATOM	1806	CA	PHE	B	302	33.839	43.640	-9.051	1.00	103.14	C
ATOM	1807	C	PHE	B	302	33.752	42.815	-7.768	1.00	102.53	C
ATOM	1808	O	PHE	B	302	32.978	41.859	-7.687	1.00	102.07	O
ATOM	1809	CB	PHE	B	302	35.222	44.283	-9.172	1.00	103.18	C
ATOM	1810	N	LYS	B	303	34.554	43.189	-6.772	1.00	101.84	N
ATOM	1811	CA	LYS	B	303	34.577	42.495	-5.488	1.00	100.63	C
ATOM	1812	C	LYS	B	303	33.991	43.369	-4.375	1.00	99.62	C
ATOM	1813	O	LYS	B	303	32.952	44.003	-4.557	1.00	99.74	O
ATOM	1814	CB	LYS	B	303	36.007	42.092	-5.144	1.00	100.68	C
ATOM	1815	N	SER	B	304	34.657	43.398	-3.223	1.00	98.02	N
ATOM	1816	CA	SER	B	304	34.189	44.197	-2.093	1.00	96.12	C
ATOM	1817	C	SER	B	304	35.197	45.287	-1.746	1.00	94.26	C
ATOM	1818	O	SER	B	304	36.399	45.035	-1.693	1.00	94.27	O
ATOM	1819	CB	SER	B	304	33.957	43.306	-0.870	1.00	96.03	C
ATOM	1820	OG	SER	B	304	35.168	42.716	-0.438	1.00	96.47	O
ATOM	1821	N	PRO	B	305	34.713	46.517	-1.507	1.00	92.25	N
ATOM	1822	CA	PRO	B	305	35.564	47.660	-1.163	1.00	90.03	C
ATOM	1823	C	PRO	B	305	36.325	47.470	0.143	1.00	87.64	C
ATOM	1824	O	PRO	B	305	36.170	46.462	0.832	1.00	87.52	O
ATOM	1825	CB	PRO	B	305	34.571	48.818	-1.073	1.00	90.88	C

ATOM	1826	CG	PRO	B	305	33.485	48.412	-2.014	1.00	91.99	C
ATOM	1827	CD	PRO	B	305	33.317	46.952	-1.683	1.00	92.24	C
ATOM	1828	N	GLU	B	306	37.149	48.458	0.469	1.00	84.58	N
ATOM	1829	CA	GLU	B	306	37.944	48.447	1.687	1.00	80.75	C
ATOM	1830	C	GLU	B	306	37.022	48.847	2.842	1.00	76.69	C
ATOM	1831	O	GLU	B	306	36.143	49.693	2.677	1.00	75.73	O
ATOM	1832	CB	GLU	B	306	39.095	49.451	1.540	1.00	82.18	C
ATOM	1833	CG	GLU	B	306	40.088	49.503	2.690	1.00	83.86	C
ATOM	1834	CD	GLU	B	306	41.032	50.696	2.582	1.00	85.10	C
ATOM	1835	OE1	GLU	B	306	41.781	50.786	1.584	1.00	85.38	O
ATOM	1836	OE2	GLU	B	306	41.020	51.553	3.494	1.00	85.08	O
ATOM	1837	N	PRO	B	307	37.193	48.223	4.017	1.00	73.12	N
ATOM	1838	CA	PRO	B	307	36.360	48.539	5.185	1.00	69.76	C
ATOM	1839	C	PRO	B	307	36.742	49.878	5.824	1.00	66.56	C
ATOM	1840	O	PRO	B	307	37.926	50.193	5.957	1.00	64.97	O
ATOM	1841	CB	PRO	B	307	36.628	47.368	6.136	1.00	70.02	C
ATOM	1842	CG	PRO	B	307	37.091	46.264	5.224	1.00	71.66	C
ATOM	1843	CD	PRO	B	307	37.970	46.996	4.253	1.00	72.14	C
ATOM	1844	N	ARG	B	308	35.742	50.663	6.217	1.00	63.07	N
ATOM	1845	CA	ARG	B	308	35.998	51.948	6.860	1.00	59.50	C
ATOM	1846	C	ARG	B	308	35.120	52.134	8.088	1.00	56.46	C
ATOM	1847	O	ARG	B	308	34.031	51.566	8.183	1.00	55.95	O
ATOM	1848	CB	ARG	B	308	35.745	53.109	5.896	1.00	60.12	C
ATOM	1849	CG	ARG	B	308	36.675	53.175	4.704	1.00	62.24	C
ATOM	1850	CD	ARG	B	308	36.430	54.452	3.914	1.00	64.63	C
ATOM	1851	NE	ARG	B	308	37.145	54.461	2.640	1.00	67.72	N
ATOM	1852	CZ	ARG	B	308	37.166	55.491	1.797	1.00	68.01	C
ATOM	1853	NH1	ARG	B	308	36.513	56.609	2.091	1.00	68.04	N
ATOM	1854	NH2	ARG	B	308	37.831	55.399	0.652	1.00	68.32	N
ATOM	1855	N	LEU	B	309	35.603	52.934	9.030	1.00	52.29	N
ATOM	1856	CA	LEU	B	309	34.857	53.212	10.244	1.00	48.71	C
ATOM	1857	C	LEU	B	309	34.053	54.486	10.070	1.00	46.92	C
ATOM	1858	O	LEU	B	309	34.495	55.419	9.398	1.00	47.41	O
ATOM	1859	CB	LEU	B	309	35.809	53.358	11.429	1.00	47.87	C
ATOM	1860	CG	LEU	B	309	36.441	52.060	11.931	1.00	47.25	C
ATOM	1861	CD1	LEU	B	309	37.403	52.377	13.069	1.00	48.09	C
ATOM	1862	CD2	LEU	B	309	35.352	51.098	12.399	1.00	45.50	C
ATOM	1863	N	PHE	B	310	32.867	54.520	10.673	1.00	44.70	N
ATOM	1864	CA	PHE	B	310	31.987	55.685	10.591	1.00	41.73	C
ATOM	1865	C	PHE	B	310	31.218	55.854	11.889	1.00	40.76	C
ATOM	1866	O	PHE	B	310	30.862	54.865	12.524	1.00	42.19	O
ATOM	1867	CB	PHE	B	310	30.956	55.522	9.465	1.00	41.12	C
ATOM	1868	CG	PHE	B	310	31.552	55.318	8.105	1.00	38.93	C
ATOM	1869	CD1	PHE	B	310	31.986	54.064	7.702	1.00	37.47	C
ATOM	1870	CD2	PHE	B	310	31.683	56.390	7.223	1.00	40.56	C
ATOM	1871	CE1	PHE	B	310	32.542	53.878	6.444	1.00	37.92	C
ATOM	1872	CE2	PHE	B	310	32.242	56.212	5.961	1.00	37.25	C
ATOM	1873	CZ	PHE	B	310	32.671	54.955	5.573	1.00	36.90	C
ATOM	1874	N	THR	B	311	30.955	57.100	12.281	1.00	38.12	N
ATOM	1875	CA	THR	B	311	30.174	57.345	13.489	1.00	35.14	C
ATOM	1876	C	THR	B	311	28.716	57.104	13.087	1.00	33.93	C
ATOM	1877	O	THR	B	311	28.398	56.982	11.894	1.00	33.31	O
ATOM	1878	CB	THR	B	311	30.296	58.803	14.007	1.00	34.64	C
ATOM	1879	OG1	THR	B	311	29.566	59.673	13.139	1.00	34.01	O
ATOM	1880	CG2	THR	B	311	31.753	59.251	14.063	1.00	34.36	C
ATOM	1881	N	PRO	B	312	27.807	57.034	14.070	1.00	32.38	N
ATOM	1882	CA	PRO	B	312	26.414	56.799	13.686	1.00	31.44	C
ATOM	1883	C	PRO	B	312	25.847	57.830	12.720	1.00	31.83	C
ATOM	1884	O	PRO	B	312	25.191	57.468	11.738	1.00	29.74	O
ATOM	1885	CB	PRO	B	312	25.695	56.764	15.026	1.00	30.31	C
ATOM	1886	CG	PRO	B	312	26.727	56.090	15.904	1.00	31.27	C
ATOM	1887	CD	PRO	B	312	27.996	56.828	15.518	1.00	30.88	C
ATOM	1888	N	GLU	B	313	26.092	59.109	12.968	1.00	32.84	N

Table 4

ATOM	1889	CA	GLU B 313	25.552	60.102	12.048	1.00	36.95	C
ATOM	1890	C	GLU B 313	26.130	59.936	10.647	1.00	35.86	C
ATOM	1891	O	GLU B 313	25.399	60.028	9.666	1.00	37.73	O
ATOM	1892	CB	GLU B 313	25.768	61.533	12.572	1.00	40.35	C
ATOM	1893	CG	GLU B 313	27.158	61.866	13.072	1.00	48.07	C
ATOM	1894	CD	GLU B 313	28.160	62.071	11.956	1.00	53.14	C
ATOM	1895	OE1	GLU B 313	27.739	62.435	10.835	1.00	56.07	O
ATOM	1896	OE2	GLU B 313	29.373	61.893	12.208	1.00	56.39	O
ATOM	1897	N	GLU B 314	27.430	59.669	10.548	1.00	35.90	N
ATOM	1898	CA	GLU B 314	28.065	59.487	9.243	1.00	36.50	C
ATOM	1899	C	GLU B 314	27.489	58.270	8.507	1.00	36.42	C
ATOM	1900	O	GLU B 314	27.220	58.332	7.307	1.00	33.77	O
ATOM	1901	CB	GLU B 314	29.587	59.291	9.387	1.00	39.57	C
ATOM	1902	CG	GLU B 314	30.356	60.423	10.075	1.00	43.63	C
ATOM	1903	CD	GLU B 314	31.860	60.150	10.172	1.00	46.74	C
ATOM	1904	OE1	GLU B 314	32.247	59.041	10.607	1.00	44.49	O
ATOM	1905	OE2	GLU B 314	32.658	61.049	9.817	1.00	48.52	O
ATOM	1906	N	PHE B 315	27.313	57.164	9.232	1.00	34.16	N
ATOM	1907	CA	PHE B 315	26.803	55.931	8.637	1.00	32.79	C
ATOM	1908	C	PHE B 315	25.391	56.068	8.077	1.00	33.32	C
ATOM	1909	O	PHE B 315	25.111	55.653	6.946	1.00	32.68	O
ATOM	1910	CB	PHE B 315	26.818	54.797	9.670	1.00	30.68	C
ATOM	1911	CG	PHE B 315	26.395	53.459	9.112	1.00	30.52	C
ATOM	1912	CD1	PHE B 315	27.344	52.569	8.595	1.00	28.74	C
ATOM	1913	CD2	PHE B 315	25.049	53.085	9.105	1.00	28.69	C
ATOM	1914	CE1	PHE B 315	26.960	51.331	8.086	1.00	27.98	C
ATOM	1915	CE2	PHE B 315	24.650	51.844	8.596	1.00	26.95	C
ATOM	1916	CZ	PHE B 315	25.603	50.967	8.088	1.00	29.41	C
ATOM	1917	N	PHE B 316	24.497	56.652	8.860	1.00	33.65	N
ATOM	1918	CA	PHE B 316	23.130	56.777	8.405	1.00	36.80	C
ATOM	1919	C	PHE B 316	22.885	57.866	7.381	1.00	39.29	C
ATOM	1920	O	PHE B 316	21.802	57.948	6.804	1.00	40.21	O
ATOM	1921	CB	PHE B 316	22.195	56.888	9.608	1.00	35.12	C
ATOM	1922	CG	PHE B 316	22.153	55.627	10.421	1.00	34.42	C
ATOM	1923	CD1	PHE B 316	23.028	55.441	11.491	1.00	33.83	C
ATOM	1924	CD2	PHE B 316	21.312	54.578	10.049	1.00	32.73	C
ATOM	1925	CE1	PHE B 316	23.072	54.222	12.176	1.00	35.74	C
ATOM	1926	CE2	PHE B 316	21.346	53.353	10.723	1.00	31.66	C
ATOM	1927	CZ	PHE B 316	22.225	53.170	11.786	1.00	32.51	C
ATOM	1928	N	ARG B 317	23.890	58.703	7.147	1.00	40.85	N
ATOM	1929	CA	ARG B 317	23.758	59.723	6.122	1.00	42.36	C
ATOM	1930	C	ARG B 317	24.001	58.947	4.825	1.00	41.17	C
ATOM	1931	O	ARG B 317	23.232	59.056	3.871	1.00	41.74	O
ATOM	1932	CB	ARG B 317	24.799	60.832	6.319	1.00	45.58	C
ATOM	1933	CG	ARG B 317	24.458	61.797	7.460	1.00	51.23	C
ATOM	1934	CD	ARG B 317	25.622	62.740	7.790	1.00	54.05	C
ATOM	1935	NE	ARG B 317	25.270	63.743	8.798	1.00	54.75	N
ATOM	1936	CZ	ARG B 317	26.132	64.607	9.338	1.00	56.14	C
ATOM	1937	NH1	ARG B 317	27.410	64.599	8.977	1.00	57.31	N
ATOM	1938	NH2	ARG B 317	25.715	65.490	10.236	1.00	56.15	N
ATOM	1939	N	ILE B 318	25.055	58.133	4.816	1.00	39.36	N
ATOM	1940	CA	ILE B 318	25.391	57.306	3.657	1.00	38.03	C
ATOM	1941	C	ILE B 318	24.245	56.340	3.371	1.00	36.22	C
ATOM	1942	O	ILE B 318	24.029	55.926	2.232	1.00	36.42	O
ATOM	1943	CB	ILE B 318	26.676	56.476	3.911	1.00	39.68	C
ATOM	1944	CG1	ILE B 318	27.919	57.346	3.707	1.00	40.60	C
ATOM	1945	CG2	ILE B 318	26.723	55.270	2.973	1.00	37.16	C
ATOM	1946	CD1	ILE B 318	27.986	58.564	4.591	1.00	44.51	C
ATOM	1947	N	PHE B 319	23.525	55.978	4.425	1.00	34.28	N
ATOM	1948	CA	PHE B 319	22.397	55.066	4.334	1.00	33.54	C
ATOM	1949	C	PHE B 319	21.210	55.724	3.615	1.00	34.34	C
ATOM	1950	O	PHE B 319	20.709	55.209	2.609	1.00	30.32	O
ATOM	1951	CB	PHE B 319	21.985	54.645	5.747	1.00	32.93	C

ATOM	1952	CG	PHE	B	319	20.712	53.853	5.806	1.00	32.12	C
ATOM	1953	CD1	PHE	B	319	20.717	52.481	5.585	1.00	35.73	C
ATOM	1954	CD2	PHE	B	319	19.510	54.473	6.128	1.00	32.66	C
ATOM	1955	CE1	PHE	B	319	19.542	51.734	5.695	1.00	32.65	C
ATOM	1956	CE2	PHE	B	319	18.328	53.734	6.237	1.00	31.79	C
ATOM	1957	CZ	PHE	B	319	18.347	52.364	6.022	1.00	32.56	C
ATOM	1958	N	ASN	B	320	20.757	56.858	4.139	1.00	35.81	N
ATOM	1959	CA	ASN	B	320	19.631	57.559	3.536	1.00	39.77	C
ATOM	1960	C	ASN	B	320	19.920	57.913	2.083	1.00	41.47	C
ATOM	1961	O	ASN	B	320	19.079	57.720	1.211	1.00	39.25	O
ATOM	1962	CB	ASN	B	320	19.304	58.824	4.324	1.00	39.83	C
ATOM	1963	CG	ASN	B	320	18.825	58.527	5.731	1.00	42.12	C
ATOM	1964	OD1	ASN	B	320	17.933	57.699	5.941	1.00	43.16	O
ATOM	1965	ND2	ASN	B	320	19.407	59.214	6.706	1.00	43.50	N
ATOM	1966	N	ARG	B	321	21.119	58.420	1.823	1.00	45.27	N
ATOM	1967	CA	ARG	B	321	21.498	58.780	0.464	1.00	50.92	C
ATOM	1968	C	ARG	B	321	21.341	57.581	-0.461	1.00	51.05	C
ATOM	1969	O	ARG	B	321	20.706	57.674	-1.510	1.00	50.54	O
ATOM	1970	CB	ARG	B	321	22.946	59.269	0.436	1.00	54.83	C
ATOM	1971	CG	ARG	B	321	23.177	60.518	1.268	1.00	61.05	C
ATOM	1972	CD	ARG	B	321	24.652	60.702	1.601	1.00	65.80	C
ATOM	1973	NE	ARG	B	321	24.847	61.701	2.650	1.00	69.86	N
ATOM	1974	CZ	ARG	B	321	25.967	61.839	3.353	1.00	71.34	C
ATOM	1975	NH1	ARG	B	321	27.004	61.040	3.124	1.00	71.44	N
ATOM	1976	NH2	ARG	B	321	26.049	62.775	4.289	1.00	72.83	N
ATOM	1977	N	SER	B	322	21.918	56.452	-0.060	1.00	52.87	N
ATOM	1978	CA	SER	B	322	21.851	55.230	-0.855	1.00	53.43	C
ATOM	1979	C	SER	B	322	20.407	54.836	-1.151	1.00	55.25	C
ATOM	1980	O	SER	B	322	20.074	54.476	-2.281	1.00	55.67	O
ATOM	1981	CB	SER	B	322	22.565	54.090	-0.128	1.00	52.66	C
ATOM	1982	OG	SER	B	322	23.935	54.388	0.064	1.00	50.92	O
ATOM	1983	N	ILE	B	323	19.552	54.900	-0.136	1.00	56.46	N
ATOM	1984	CA	ILE	B	323	18.148	54.563	-0.319	1.00	58.62	C
ATOM	1985	C	ILE	B	323	17.528	55.554	-1.292	1.00	60.36	C
ATOM	1986	O	ILE	B	323	16.926	55.166	-2.292	1.00	60.43	O
ATOM	1987	CB	ILE	B	323	17.380	54.619	1.017	1.00	59.22	C
ATOM	1988	CG1	ILE	B	323	17.757	53.408	1.873	1.00	58.94	C
ATOM	1989	CG2	ILE	B	323	15.879	54.662	0.765	1.00	58.59	C
ATOM	1990	CD1	ILE	B	323	17.075	53.382	3.210	1.00	59.07	C
ATOM	1991	N	ASP	B	324	17.685	56.839	-0.991	1.00	62.51	N
ATOM	1992	CA	ASP	B	324	17.157	57.896	-1.841	1.00	64.88	C
ATOM	1993	C	ASP	B	324	17.688	57.746	-3.270	1.00	65.15	C
ATOM	1994	O	ASP	B	324	17.095	58.260	-4.218	1.00	63.55	O
ATOM	1995	CB	ASP	B	324	17.549	59.267	-1.277	1.00	67.65	C
ATOM	1996	CG	ASP	B	324	16.784	59.626	-0.004	1.00	70.52	C
ATOM	1997	OD1	ASP	B	324	16.844	58.866	0.989	1.00	71.17	O
ATOM	1998	OD2	ASP	B	324	16.120	60.685	0.005	1.00	73.09	O
ATOM	1999	N	ALA	B	325	18.800	57.029	-3.417	1.00	65.84	N
ATOM	2000	CA	ALA	B	325	19.409	56.810	-4.726	1.00	68.05	C
ATOM	2001	C	ALA	B	325	18.540	55.957	-5.648	1.00	69.79	C
ATOM	2002	O	ALA	B	325	18.808	55.860	-6.845	1.00	70.12	O
ATOM	2003	CB	ALA	B	325	20.778	56.168	-4.566	1.00	67.52	C
ATOM	2004	N	PHE	B	326	17.506	55.332	-5.095	1.00	71.53	N
ATOM	2005	CA	PHE	B	326	16.612	54.512	-5.901	1.00	73.81	C
ATOM	2006	C	PHE	B	326	15.510	55.341	-6.538	1.00	76.59	C
ATOM	2007	O	PHE	B	326	14.521	54.802	-7.031	1.00	77.23	O
ATOM	2008	CB	PHE	B	326	15.994	53.398	-5.060	1.00	73.16	C
ATOM	2009	CG	PHE	B	326	16.857	52.184	-4.953	1.00	72.21	C
ATOM	2010	CD1	PHE	B	326	18.058	52.229	-4.260	1.00	71.61	C
ATOM	2011	CD2	PHE	B	326	16.488	51.003	-5.583	1.00	72.42	C
ATOM	2012	CE1	PHE	B	326	18.882	51.116	-4.198	1.00	71.32	C
ATOM	2013	CE2	PHE	B	326	17.308	49.880	-5.528	1.00	72.69	C
ATOM	2014	CZ	PHE	B	326	18.508	49.938	-4.834	1.00	71.79	C

Table 4

ATOM	2015	N	LYS	B	327	15.685	56.657	-6.515	1.00	79.77	N
ATOM	2016	CA	LYS	B	327	14.725	57.579	-7.107	1.00	82.73	C
ATOM	2017	C	LYS	B	327	15.459	58.374	-8.176	1.00	84.67	C
ATOM	2018	O	LYS	B	327	14.960	58.570	-9.285	1.00	85.16	O
ATOM	2019	CB	LYS	B	327	14.174	58.536	-6.047	1.00	83.44	C
ATOM	2020	CG	LYS	B	327	13.281	59.630	-6.619	1.00	85.27	C
ATOM	2021	CD	LYS	B	327	12.887	60.652	-5.562	1.00	86.20	C
ATOM	2022	CE	LYS	B	327	12.049	61.772	-6.169	1.00	86.76	C
ATOM	2023	NZ	LYS	B	327	11.690	62.816	-5.163	1.00	86.99	N
ATOM	2024	N	ASP	B	328	16.656	58.824	-7.821	1.00	87.12	N
ATOM	2025	CA	ASP	B	328	17.493	59.601	-8.720	1.00	89.44	C
ATOM	2026	C	ASP	B	328	18.422	58.694	-9.523	1.00	89.84	C
ATOM	2027	O	ASP	B	328	19.617	58.966	-9.647	1.00	89.93	O
ATOM	2028	CB	ASP	B	328	18.311	60.617	-7.916	1.00	91.16	C
ATOM	2029	CG	ASP	B	328	17.436	61.629	-7.194	1.00	92.98	C
ATOM	2030	OD1	ASP	B	328	16.764	62.428	-7.880	1.00	93.99	O
ATOM	2031	OD2	ASP	B	328	17.413	61.623	-5.944	1.00	93.57	O
ATOM	2032	N	PHE	B	329	17.864	57.616	-10.063	1.00	90.47	N
ATOM	2033	CA	PHE	B	329	18.635	56.669	-10.862	1.00	91.54	C
ATOM	2034	C	PHE	B	329	17.788	56.160	-12.024	1.00	91.50	C
ATOM	2035	O	PHE	B	329	17.420	54.984	-12.076	1.00	91.13	O
ATOM	2036	CB	PHE	B	329	19.094	55.493	-9.995	1.00	92.88	C
ATOM	2037	CG	PHE	B	329	19.963	54.497	-10.719	1.00	94.37	C
ATOM	2038	CD1	PHE	B	329	20.407	53.354	-10.068	1.00	95.79	C
ATOM	2039	CD2	PHE	B	329	20.331	54.692	-12.048	1.00	95.63	C
ATOM	2040	CE1	PHE	B	329	21.201	52.419	-10.725	1.00	96.80	C
ATOM	2041	CE2	PHE	B	329	21.123	53.765	-12.715	1.00	96.49	C
ATOM	2042	CZ	PHE	B	329	21.559	52.625	-12.052	1.00	97.15	C
ATOM	2043	N	VAL	B	330	17.489	57.056	-12.957	1.00	91.01	N
ATOM	2044	CA	VAL	B	330	16.687	56.715	-14.123	1.00	90.86	C
ATOM	2045	C	VAL	B	330	17.532	56.789	-15.395	1.00	90.35	C
ATOM	2046	O	VAL	B	330	17.000	56.915	-16.500	1.00	90.30	O
ATOM	2047	CB	VAL	B	330	15.477	57.673	-14.259	1.00	91.42	C
ATOM	2048	CG1	VAL	B	330	14.548	57.510	-13.063	1.00	91.85	C
ATOM	2049	CG2	VAL	B	330	15.959	59.117	-14.359	1.00	91.34	C
ATOM	2050	N	VAL	B	331	18.849	56.700	-15.232	1.00	88.83	N
ATOM	2051	CA	VAL	B	331	19.766	56.771	-16.364	1.00	87.12	C
ATOM	2052	C	VAL	B	331	21.032	55.949	-16.132	1.00	85.40	C
ATOM	2053	O	VAL	B	331	21.325	55.551	-15.004	1.00	85.03	O
ATOM	2054	CB	VAL	B	331	20.168	58.237	-16.643	1.00	87.73	C
ATOM	2055	CG1	VAL	B	331	18.994	58.993	-17.249	1.00	88.14	C
ATOM	2056	CG2	VAL	B	331	20.600	58.911	-15.347	1.00	87.18	C
ATOM	2057	N	ALA	B	332	21.776	55.698	-17.207	1.00	83.14	N
ATOM	2058	CA	ALA	B	332	23.015	54.927	-17.128	1.00	81.00	C
ATOM	2059	C	ALA	B	332	23.944	55.274	-18.288	1.00	79.56	C
ATOM	2060	O	ALA	B	332	25.117	55.595	-18.086	1.00	78.95	O
ATOM	2061	CB	ALA	B	332	22.706	53.436	-17.135	1.00	81.62	C
ATOM	2062	N	SER	B	333	23.417	55.201	-19.505	1.00	77.72	N
ATOM	2063	CA	SER	B	333	24.196	55.519	-20.696	1.00	75.21	C
ATOM	2064	C	SER	B	333	24.292	57.035	-20.825	1.00	73.63	C
ATOM	2065	O	SER	B	333	25.081	57.555	-21.618	1.00	72.74	O
ATOM	2066	CB	SER	B	333	23.519	54.944	-21.941	1.00	74.54	C
ATOM	2067	OG	SER	B	333	23.284	53.556	-21.797	1.00	74.58	O
ATOM	2068	N	GLU	B	334	23.481	57.732	-20.032	1.00	71.81	N
ATOM	2069	CA	GLU	B	334	23.440	59.191	-20.038	1.00	70.21	C
ATOM	2070	C	GLU	B	334	24.158	59.803	-18.841	1.00	67.79	C
ATOM	2071	O	GLU	B	334	23.853	60.922	-18.432	1.00	66.60	O
ATOM	2072	CB	GLU	B	334	21.987	59.671	-20.057	1.00	71.91	C
ATOM	2073	CG	GLU	B	334	21.201	59.220	-21.274	1.00	73.77	C
ATOM	2074	CD	GLU	B	334	19.738	59.608	-21.199	1.00	75.72	C
ATOM	2075	OE1	GLU	B	334	19.039	59.128	-20.282	1.00	76.13	O
ATOM	2076	OE2	GLU	B	334	19.286	60.395	-22.057	1.00	77.49	O
ATOM	2077	N	THR	B	335	25.106	59.067	-18.277	1.00	65.94	N

ATOM	2078	CA	THR	B	335	25.866	59.566	-17.136	1.00	64.40	C
ATOM	2079	C	THR	B	335	27.359	59.421	-17.398	1.00	63.02	C
ATOM	2080	O	THR	B	335	27.773	58.942	-18.458	1.00	63.10	O
ATOM	2081	CB	THR	B	335	25.515	58.810	-15.832	1.00	64.99	C
ATOM	2082	OG1	THR	B	335	25.922	57.441	-15.946	1.00	63.15	O
ATOM	2083	CG2	THR	B	335	24.016	58.874	-15.565	1.00	63.98	C
ATOM	2084	N	SER	B	336	28.164	59.823	-16.423	1.00	60.77	N
ATOM	2085	CA	SER	B	336	29.609	59.761	-16.557	1.00	59.57	C
ATOM	2086	C	SER	B	336	30.201	58.391	-16.236	1.00	58.18	C
ATOM	2087	O	SER	B	336	29.493	57.462	-15.848	1.00	56.96	O
ATOM	2088	CB	SER	B	336	30.249	60.808	-15.650	1.00	60.02	C
ATOM	2089	OG	SER	B	336	29.972	60.524	-14.291	1.00	61.00	O
ATOM	2090	N	ASP	B	337	31.514	58.288	-16.406	1.00	56.54	N
ATOM	2091	CA	ASP	B	337	32.246	57.064	-16.128	1.00	56.72	C
ATOM	2092	C	ASP	B	337	32.198	56.783	-14.625	1.00	56.84	C
ATOM	2093	O	ASP	B	337	31.476	57.451	-13.882	1.00	56.58	O
ATOM	2094	CB	ASP	B	337	33.700	57.215	-16.588	1.00	55.51	C
ATOM	2095	CG	ASP	B	337	34.432	58.327	-15.857	1.00	54.76	C
ATOM	2096	OD1	ASP	B	337	35.542	58.699	-16.292	1.00	55.99	O
ATOM	2097	OD2	ASP	B	337	33.904	58.828	-14.842	1.00	52.06	O
ATOM	2098	N	CYS	B	338	32.975	55.804	-14.177	1.00	55.69	N
ATOM	2099	CA	CYS	B	338	32.994	55.454	-12.764	1.00	57.24	C
ATOM	2100	C	CYS	B	338	34.349	55.696	-12.110	1.00	57.23	C
ATOM	2101	O	CYS	B	338	34.680	55.079	-11.099	1.00	56.86	O
ATOM	2102	CB	CYS	B	338	32.580	53.993	-12.579	1.00	56.06	C
ATOM	2103	SG	CYS	B	338	30.835	53.650	-12.996	1.00	59.59	S
ATOM	2104	N	VAL	B	339	35.118	56.612	-12.686	1.00	57.28	N
ATOM	2105	CA	VAL	B	339	36.438	56.950	-12.173	1.00	58.39	C
ATOM	2106	C	VAL	B	339	36.526	58.443	-11.854	1.00	58.18	C
ATOM	2107	O	VAL	B	339	35.728	59.237	-12.345	1.00	57.22	O
ATOM	2108	CB	VAL	B	339	37.529	56.586	-13.211	1.00	59.55	C
ATOM	2109	CG1	VAL	B	339	38.908	56.959	-12.689	1.00	59.58	C
ATOM	2110	CG2	VAL	B	339	37.466	55.101	-13.522	1.00	60.35	C
ATOM	2111	N	VAL	B	340	37.497	58.815	-11.024	1.00	58.73	N
ATOM	2112	CA	VAL	B	340	37.704	60.207	-10.652	1.00	59.48	C
ATOM	2113	C	VAL	B	340	39.150	60.612	-10.941	1.00	61.15	C
ATOM	2114	O	VAL	B	340	40.067	60.225	-10.216	1.00	61.61	O
ATOM	2115	CB	VAL	B	340	37.420	60.440	-9.151	1.00	58.62	C
ATOM	2116	CG1	VAL	B	340	37.637	61.912	-8.798	1.00	56.58	C
ATOM	2117	CG2	VAL	B	340	36.010	60.011	-8.818	1.00	57.68	C
ATOM	2118	N	SER	B	341	39.345	61.390	-12.002	1.00	62.42	N
ATOM	2119	CA	SER	B	341	40.674	61.858	-12.389	1.00	64.38	C
ATOM	2120	C	SER	B	341	40.636	62.455	-13.790	1.00	65.42	C
ATOM	2121	O	SER	B	341	40.753	61.734	-14.784	1.00	66.24	O
ATOM	2122	CB	SER	B	341	41.681	60.707	-12.346	1.00	64.35	C
TER	2123		SER	B	341						
ATOM	2124	N	THR	C	409	25.721	30.038	33.359	1.00	119.52	N
ATOM	2125	CA	THR	C	409	24.769	31.115	33.121	1.00	119.16	C
ATOM	2126	C	THR	C	409	24.295	31.124	31.671	1.00	118.62	C
ATOM	2127	O	THR	C	409	25.071	30.866	30.750	1.00	118.27	O
ATOM	2128	CB	THR	C	409	25.389	32.489	33.456	1.00	119.49	C
ATOM	2129	OG1	THR	C	409	25.640	32.569	34.863	1.00	119.51	O
ATOM	2130	CG2	THR	C	409	24.454	33.616	33.052	1.00	119.66	C
ATOM	2131	N	ASN	C	410	23.011	31.417	31.484	1.00	117.91	N
ATOM	2132	CA	ASN	C	410	22.409	31.476	30.157	1.00	116.50	C
ATOM	2133	C	ASN	C	410	22.569	32.882	29.600	1.00	115.36	C
ATOM	2134	O	ASN	C	410	21.656	33.702	29.701	1.00	115.48	O
ATOM	2135	CB	ASN	C	410	20.935	31.116	30.238	1.00	116.84	C
ATOM	2136	N	ASN	C	411	23.734	33.154	29.018	1.00	113.54	N
ATOM	2137	CA	ASN	C	411	24.026	34.466	28.451	1.00	111.04	C
ATOM	2138	C	ASN	C	411	23.019	34.864	27.380	1.00	108.27	C
ATOM	2139	O	ASN	C	411	22.802	34.135	26.412	1.00	108.21	O
ATOM	2140	CB	ASN	C	411	25.442	34.486	27.873	1.00	112.37	C

ATOM	2141	CG	ASN	C	411	26.505	34.328	28.941	1.00113.08	C
ATOM	2142	OD1	ASN	C	411	26.606	35.145	29.857	1.00113.31	O
ATOM	2143	ND2	ASN	C	411	27.301	33.271	28.833	1.00113.72	N
ATOM	2144	N	VAL	C	412	22.412	36.032	27.571	1.00104.37	N
ATOM	2145	CA	VAL	C	412	21.410	36.554	26.651	1.00 99.13	C
ATOM	2146	C	VAL	C	412	21.977	36.814	25.260	1.00 94.12	C
ATOM	2147	O	VAL	C	412	22.346	37.938	24.915	1.00 94.18	O
ATOM	2148	CB	VAL	C	412	20.787	37.854	27.205	1.00100.42	C
ATOM	2149	CG1	VAL	C	412	19.645	38.317	26.309	1.00100.54	C
ATOM	2150	CG2	VAL	C	412	20.291	37.615	28.621	1.00100.43	C
ATOM	2151	N	LYS	C	413	22.042	35.742	24.479	1.00 87.81	N
ATOM	2152	CA	LYS	C	413	22.533	35.751	23.105	1.00 80.16	C
ATOM	2153	C	LYS	C	413	21.637	34.732	22.408	1.00 74.79	C
ATOM	2154	O	LYS	C	413	21.057	35.003	21.350	1.00 72.74	O
ATOM	2155	CB	LYS	C	413	23.992	35.301	23.060	1.00 81.15	C
ATOM	2156	N	ASP	C	414	21.540	33.554	23.025	1.00 67.32	N
ATOM	2157	CA	ASP	C	414	20.687	32.486	22.535	1.00 58.95	C
ATOM	2158	C	ASP	C	414	19.291	33.054	22.731	1.00 50.71	C
ATOM	2159	O	ASP	C	414	18.411	32.926	21.877	1.00 48.37	O
ATOM	2160	CB	ASP	C	414	20.842	31.235	23.405	1.00 64.38	C
ATOM	2161	CG	ASP	C	414	22.196	30.571	23.249	1.00 68.30	C
ATOM	2162	OD1	ASP	C	414	22.477	30.055	22.140	1.00 69.88	O
ATOM	2163	OD2	ASP	C	414	22.973	30.563	24.235	1.00 69.38	O
ATOM	2164	N	VAL	C	415	19.116	33.689	23.883	1.00 40.98	N
ATOM	2165	CA	VAL	C	415	17.858	34.308	24.253	1.00 35.05	C
ATOM	2166	C	VAL	C	415	17.410	35.298	23.173	1.00 34.05	C
ATOM	2167	O	VAL	C	415	16.262	35.254	22.722	1.00 32.19	O
ATOM	2168	CB	VAL	C	415	17.997	35.011	25.627	1.00 31.93	C
ATOM	2169	CG1	VAL	C	415	16.824	35.919	25.891	1.00 32.40	C
ATOM	2170	CG2	VAL	C	415	18.084	33.953	26.727	1.00 28.81	C
ATOM	2171	N	THR	C	416	18.317	36.177	22.748	1.00 31.45	N
ATOM	2172	CA	THR	C	416	17.995	37.152	21.717	1.00 29.58	C
ATOM	2173	C	THR	C	416	17.517	36.432	20.456	1.00 29.53	C
ATOM	2174	O	THR	C	416	16.511	36.813	19.855	1.00 26.91	O
ATOM	2175	CB	THR	C	416	19.223	38.066	21.386	1.00 30.06	C
ATOM	2176	OG1	THR	C	416	19.345	39.083	22.390	1.00 30.21	O
ATOM	2177	CG2	THR	C	416	19.055	38.750	20.016	1.00 28.63	C
ATOM	2178	N	LYS	C	417	18.238	35.388	20.061	1.00 29.46	N
ATOM	2179	CA	LYS	C	417	17.868	34.611	18.880	1.00 29.39	C
ATOM	2180	C	LYS	C	417	16.489	33.965	19.050	1.00 27.59	C
ATOM	2181	O	LYS	C	417	15.664	33.995	18.136	1.00 28.30	O
ATOM	2182	CB	LYS	C	417	18.903	33.509	18.617	1.00 30.97	C
ATOM	2183	CG	LYS	C	417	19.825	33.786	17.439	1.00 34.65	C
ATOM	2184	CD	LYS	C	417	20.818	34.894	17.729	1.00 36.75	C
ATOM	2185	CE	LYS	C	417	22.175	34.311	18.094	1.00 40.95	C
ATOM	2186	NZ	LYS	C	417	22.774	33.558	16.953	1.00 39.53	N
ATOM	2187	N	LEU	C	418	16.251	33.377	20.219	1.00 23.37	N
ATOM	2188	CA	LEU	C	418	14.983	32.715	20.495	1.00 22.30	C
ATOM	2189	C	LEU	C	418	13.811	33.686	20.457	1.00 20.70	C
ATOM	2190	O	LEU	C	418	12.722	33.338	20.017	1.00 21.55	O
ATOM	2191	CB	LEU	C	418	15.038	32.026	21.860	1.00 19.71	C
ATOM	2192	CG	LEU	C	418	13.758	31.375	22.391	1.00 20.40	C
ATOM	2193	CD1	LEU	C	418	13.230	30.356	21.403	1.00 15.96	C
ATOM	2194	CD2	LEU	C	418	14.051	30.703	23.733	1.00 16.28	C
ATOM	2195	N	VAL	C	419	14.039	34.907	20.921	1.00 21.24	N
ATOM	2196	CA	VAL	C	419	12.986	35.909	20.934	1.00 19.24	C
ATOM	2197	C	VAL	C	419	12.647	36.402	19.525	1.00 18.54	C
ATOM	2198	O	VAL	C	419	11.477	36.632	19.196	1.00 20.16	O
ATOM	2199	CB	VAL	C	419	13.382	37.067	21.861	1.00 18.08	C
ATOM	2200	CG1	VAL	C	419	12.374	38.219	21.751	1.00 21.66	C
ATOM	2201	CG2	VAL	C	419	13.376	36.554	23.302	1.00 15.68	C
ATOM	2202	N	ALA	C	420	13.672	36.533	18.693	1.00 15.15	N
ATOM	2203	CA	ALA	C	420	13.508	36.963	17.317	1.00 17.52	C

Table 4

ATOM	2204	C	ALA	C	420	12.814	35.852	16.522	1.00	18.92	C
ATOM	2205	O	ALA	C	420	12.155	36.123	15.518	1.00	20.02	O
ATOM	2206	CB	ALA	C	420	14.886	37.273	16.699	1.00	16.86	C
ATOM	2207	N	ASN	C	421	12.979	34.608	16.975	1.00	17.25	N
ATOM	2208	CA	ASN	C	421	12.378	33.447	16.327	1.00	20.11	C
ATOM	2209	C	ASN	C	421	11.025	32.989	16.861	1.00	18.94	C
ATOM	2210	O	ASN	C	421	10.490	31.998	16.396	1.00	22.70	O
ATOM	2211	CB	ASN	C	421	13.329	32.252	16.363	1.00	20.49	C
ATOM	2212	CG	ASN	C	421	14.273	32.226	15.184	1.00	23.76	C
ATOM	2213	OD1	ASN	C	421	13.956	32.733	14.111	1.00	22.84	O
ATOM	2214	ND2	ASN	C	421	15.434	31.610	15.370	1.00	26.43	N
ATOM	2215	N	LEU	C	422	10.485	33.684	17.850	1.00	21.69	N
ATOM	2216	CA	LEU	C	422	9.165	33.347	18.402	1.00	21.52	C
ATOM	2217	C	LEU	C	422	8.226	34.462	17.951	1.00	22.96	C
ATOM	2218	O	LEU	C	422	8.628	35.627	17.929	1.00	22.14	O
ATOM	2219	CB	LEU	C	422	9.204	33.318	19.930	1.00	17.36	C
ATOM	2220	CG	LEU	C	422	9.994	32.173	20.569	1.00	19.51	C
ATOM	2221	CD1	LEU	C	422	10.204	32.467	22.063	1.00	16.94	C
ATOM	2222	CD2	LEU	C	422	9.237	30.842	20.358	1.00	15.76	C
ATOM	2223	N	PRO	C	423	6.975	34.124	17.568	1.00	24.23	N
ATOM	2224	CA	PRO	C	423	6.047	35.183	17.127	1.00	25.36	C
ATOM	2225	C	PRO	C	423	5.772	36.202	18.228	1.00	25.17	C
ATOM	2226	O	PRO	C	423	5.462	35.831	19.353	1.00	27.09	O
ATOM	2227	CB	PRO	C	423	4.792	34.413	16.691	1.00	22.59	C
ATOM	2228	CG	PRO	C	423	4.928	33.041	17.347	1.00	23.46	C
ATOM	2229	CD	PRO	C	423	6.406	32.778	17.368	1.00	24.55	C
ATOM	2230	N	LYS	C	424	5.903	37.484	17.898	1.00	27.84	N
ATOM	2231	CA	LYS	C	424	5.699	38.562	18.870	1.00	29.74	C
ATOM	2232	C	LYS	C	424	4.366	38.469	19.606	1.00	28.96	C
ATOM	2233	O	LYS	C	424	4.251	38.908	20.744	1.00	25.75	O
ATOM	2234	CB	LYS	C	424	5.783	39.927	18.191	1.00	29.72	C
ATOM	2235	CG	LYS	C	424	7.117	40.251	17.574	1.00	37.16	C
ATOM	2236	CD	LYS	C	424	6.952	41.363	16.524	1.00	40.32	C
ATOM	2237	CE	LYS	C	424	8.218	41.569	15.698	1.00	42.47	C
ATOM	2238	NZ	LYS	C	424	7.945	42.406	14.488	1.00	43.47	N
ATOM	2239	N	ASP	C	425	3.360	37.902	18.957	1.00	28.50	N
ATOM	2240	CA	ASP	C	425	2.059	37.791	19.590	1.00	32.00	C
ATOM	2241	C	ASP	C	425	1.843	36.416	20.215	1.00	28.99	C
ATOM	2242	O	ASP	C	425	0.725	36.053	20.534	1.00	29.58	O
ATOM	2243	CB	ASP	C	425	0.951	38.097	18.569	1.00	32.89	C
ATOM	2244	CG	ASP	C	425	0.984	37.156	17.385	1.00	36.03	C
ATOM	2245	OD1	ASP	C	425	2.071	36.612	17.101	1.00	34.79	O
ATOM	2246	OD2	ASP	C	425	-0.062	36.968	16.729	1.00	40.18	O
ATOM	2247	N	TYR	C	426	2.910	35.647	20.388	1.00	28.20	N
ATOM	2248	CA	TYR	C	426	2.769	34.326	20.996	1.00	27.47	C
ATOM	2249	C	TYR	C	426	2.865	34.459	22.518	1.00	28.12	C
ATOM	2250	O	TYR	C	426	3.865	34.949	23.044	1.00	31.37	O
ATOM	2251	CB	TYR	C	426	3.861	33.378	20.478	1.00	26.08	C
ATOM	2252	CG	TYR	C	426	3.674	31.949	20.945	1.00	26.36	C
ATOM	2253	CD1	TYR	C	426	2.494	31.256	20.671	1.00	24.85	C
ATOM	2254	CD2	TYR	C	426	4.653	31.302	21.688	1.00	24.72	C
ATOM	2255	CE1	TYR	C	426	2.295	29.961	21.130	1.00	25.05	C
ATOM	2256	CE2	TYR	C	426	4.461	29.997	22.151	1.00	23.79	C
ATOM	2257	CZ	TYR	C	426	3.283	29.341	21.869	1.00	24.37	C
ATOM	2258	OH	TYR	C	426	3.083	28.066	22.327	1.00	25.86	O
ATOM	2259	N	MET	C	427	1.833	34.023	23.232	1.00	28.78	N
ATOM	2260	CA	MET	C	427	1.830	34.132	24.686	1.00	28.41	C
ATOM	2261	C	MET	C	427	2.356	32.893	25.398	1.00	27.73	C
ATOM	2262	O	MET	C	427	2.018	31.767	25.059	1.00	25.73	O
ATOM	2263	CB	MET	C	427	0.421	34.445	25.194	1.00	31.71	C
ATOM	2264	CG	MET	C	427	-0.223	35.679	24.555	1.00	36.93	C
ATOM	2265	SD	MET	C	427	0.761	37.196	24.702	1.00	41.33	S
ATOM	2266	CE	MET	C	427	0.357	37.679	26.390	1.00	39.85	C

ATOM	2267	N	ILE	C	428	3.185	33.124	26.406	1.00	27.81	N
ATOM	2268	CA	ILE	C	428	3.768	32.052	27.196	1.00	26.77	C
ATOM	2269	C	ILE	C	428	3.160	32.148	28.590	1.00	26.18	C
ATOM	2270	O	ILE	C	428	3.040	33.233	29.145	1.00	24.71	O
ATOM	2271	CB	ILE	C	428	5.305	32.216	27.295	1.00	28.58	C
ATOM	2272	CG1	ILE	C	428	5.927	32.138	25.893	1.00	27.33	C
ATOM	2273	CG2	ILE	C	428	5.889	31.165	28.238	1.00	26.23	C
ATOM	2274	CD1	ILE	C	428	7.422	32.453	25.850	1.00	25.32	C
ATOM	2275	N	THR	C	429	2.769	31.011	29.149	1.00	26.38	N
ATOM	2276	CA	THR	C	429	2.177	30.999	30.479	1.00	26.90	C
ATOM	2277	C	THR	C	429	3.231	30.882	31.556	1.00	25.21	C
ATOM	2278	O	THR	C	429	4.150	30.068	31.461	1.00	24.68	O
ATOM	2279	CB	THR	C	429	1.209	29.811	30.676	1.00	28.90	C
ATOM	2280	OG1	THR	C	429	0.203	29.835	29.657	1.00	34.43	O
ATOM	2281	CG2	THR	C	429	0.536	29.910	32.047	1.00	30.79	C
ATOM	2282	N	LEU	C	430	3.081	31.694	32.591	1.00	24.21	N
ATOM	2283	CA	LEU	C	430	4.001	31.668	33.710	1.00	23.59	C
ATOM	2284	C	LEU	C	430	3.270	32.006	35.007	1.00	25.18	C
ATOM	2285	O	LEU	C	430	2.629	33.050	35.125	1.00	24.57	O
ATOM	2286	CB	LEU	C	430	5.156	32.659	33.483	1.00	22.49	C
ATOM	2287	CG	LEU	C	430	6.101	32.909	34.673	1.00	21.79	C
ATOM	2288	CD1	LEU	C	430	6.910	31.647	34.969	1.00	19.59	C
ATOM	2289	CD2	LEU	C	430	7.026	34.079	34.368	1.00	20.81	C
ATOM	2290	N	LYS	C	431	3.347	31.102	35.973	1.00	26.18	N
ATOM	2291	CA	LYS	C	431	2.737	31.349	37.267	1.00	29.32	C
ATOM	2292	C	LYS	C	431	3.719	32.292	37.972	1.00	29.35	C
ATOM	2293	O	LYS	C	431	4.625	31.868	38.692	1.00	28.17	O
ATOM	2294	CB	LYS	C	431	2.564	30.035	38.034	1.00	31.78	C
ATOM	2295	CG	LYS	C	431	1.679	28.986	37.322	1.00	30.55	C
ATOM	2296	CD	LYS	C	431	1.500	27.732	38.201	1.00	33.93	C
ATOM	2297	CE	LYS	C	431	0.721	26.599	37.514	1.00	34.68	C
ATOM	2298	NZ	LYS	C	431	1.518	25.866	36.470	1.00	36.88	N
ATOM	2299	N	TYR	C	432	3.530	33.581	37.710	1.00	31.52	N
ATOM	2300	CA	TYR	C	432	4.352	34.664	38.240	1.00	33.55	C
ATOM	2301	C	TYR	C	432	4.262	34.779	39.761	1.00	35.80	C
ATOM	2302	O	TYR	C	432	3.169	34.748	40.330	1.00	36.29	O
ATOM	2303	CB	TYR	C	432	3.905	35.982	37.588	1.00	34.63	C
ATOM	2304	CG	TYR	C	432	4.649	37.223	38.040	1.00	36.39	C
ATOM	2305	CD1	TYR	C	432	5.912	37.532	37.531	1.00	36.97	C
ATOM	2306	CD2	TYR	C	432	4.098	38.080	38.993	1.00	35.09	C
ATOM	2307	CE1	TYR	C	432	6.610	38.666	37.965	1.00	37.33	C
ATOM	2308	CE2	TYR	C	432	4.786	39.212	39.433	1.00	34.43	C
ATOM	2309	CZ	TYR	C	432	6.039	39.498	38.917	1.00	36.21	C
ATOM	2310	OH	TYR	C	432	6.732	40.599	39.363	1.00	37.69	O
ATOM	2311	N	VAL	C	433	5.417	34.909	40.411	1.00	36.29	N
ATOM	2312	CA	VAL	C	433	5.486	35.055	41.862	1.00	35.95	C
ATOM	2313	C	VAL	C	433	5.433	36.547	42.195	1.00	37.68	C
ATOM	2314	O	VAL	C	433	6.337	37.303	41.846	1.00	37.86	O
ATOM	2315	CB	VAL	C	433	6.799	34.455	42.421	1.00	36.60	C
ATOM	2316	CG1	VAL	C	433	6.947	34.777	43.906	1.00	31.64	C
ATOM	2317	CG2	VAL	C	433	6.805	32.956	42.199	1.00	35.80	C
ATOM	2318	N	PRO	C	434	4.356	36.993	42.856	1.00	39.99	N
ATOM	2319	CA	PRO	C	434	4.209	38.408	43.221	1.00	43.19	C
ATOM	2320	C	PRO	C	434	5.296	38.906	44.160	1.00	45.66	C
ATOM	2321	O	PRO	C	434	5.646	38.237	45.126	1.00	46.94	O
ATOM	2322	CB	PRO	C	434	2.820	38.460	43.850	1.00	42.20	C
ATOM	2323	CG	PRO	C	434	2.634	37.050	44.389	1.00	41.37	C
ATOM	2324	CD	PRO	C	434	3.173	36.216	43.267	1.00	38.44	C
ATOM	2325	N	GLY	C	435	5.828	40.086	43.867	1.00	48.42	N
ATOM	2326	CA	GLY	C	435	6.875	40.653	44.694	1.00	51.65	C
ATOM	2327	C	GLY	C	435	8.220	40.622	43.994	1.00	53.74	C
ATOM	2328	O	GLY	C	435	9.183	41.234	44.451	1.00	54.21	O
ATOM	2329	N	MET	C	436	8.267	39.905	42.875	1.00	55.58	N

Table 4

ATOM	2330	CA	MET	C	436	9.467	39.746	42.053	1.00	57.85	C
ATOM	2331	C	MET	C	436	10.171	41.077	41.781	1.00	57.97	C
ATOM	2332	O	MET	C	436	11.366	41.104	41.499	1.00	57.90	O
ATOM	2333	CB	MET	C	436	9.073	39.086	40.716	1.00	60.24	C
ATOM	2334	CG	MET	C	436	10.117	38.170	40.061	1.00	62.63	C
ATOM	2335	SD	MET	C	436	11.294	38.958	38.921	1.00	66.70	S
ATOM	2336	CE	MET	C	436	10.350	39.014	37.425	1.00	65.33	C
ATOM	2337	N	ASP	C	437	9.435	42.179	41.884	1.00	58.78	N
ATOM	2338	CA	ASP	C	437	10.000	43.494	41.596	1.00	59.01	C
ATOM	2339	C	ASP	C	437	10.399	44.398	42.766	1.00	58.17	C
ATOM	2340	O	ASP	C	437	11.122	45.370	42.564	1.00	58.63	O
ATOM	2341	CB	ASP	C	437	9.056	44.253	40.652	1.00	59.84	C
ATOM	2342	CG	ASP	C	437	7.672	44.451	41.239	1.00	61.99	C
ATOM	2343	OD1	ASP	C	437	7.187	43.548	41.953	1.00	62.11	O
ATOM	2344	OD2	ASP	C	437	7.058	45.507	40.971	1.00	63.72	O
ATOM	2345	N	VAL	C	438	9.957	44.100	43.982	1.00	57.08	N
ATOM	2346	CA	VAL	C	438	10.333	44.949	45.113	1.00	57.03	C
ATOM	2347	C	VAL	C	438	10.929	44.203	46.306	1.00	56.72	C
ATOM	2348	O	VAL	C	438	11.658	44.789	47.110	1.00	56.31	O
ATOM	2349	CB	VAL	C	438	9.134	45.800	45.619	1.00	57.87	C
ATOM	2350	CG1	VAL	C	438	8.678	46.761	44.529	1.00	58.76	C
ATOM	2351	CG2	VAL	C	438	7.991	44.898	46.059	1.00	57.18	C
ATOM	2352	N	LEU	C	439	10.625	42.916	46.425	1.00	55.85	N
ATOM	2353	CA	LEU	C	439	11.146	42.132	47.534	1.00	55.27	C
ATOM	2354	C	LEU	C	439	12.559	41.640	47.258	1.00	54.28	C
ATOM	2355	O	LEU	C	439	12.969	41.499	46.104	1.00	53.11	O
ATOM	2356	CB	LEU	C	439	10.243	40.924	47.816	1.00	55.76	C
ATOM	2357	CG	LEU	C	439	8.888	41.175	48.477	1.00	56.88	C
ATOM	2358	CD1	LEU	C	439	8.011	42.009	47.559	1.00	59.05	C
ATOM	2359	CD2	LEU	C	439	8.218	39.851	48.783	1.00	56.52	C
ATOM	2360	N	PRO	C	440	13.333	41.387	48.324	1.00	53.74	N
ATOM	2361	CA	PRO	C	440	14.699	40.902	48.121	1.00	52.02	C
ATOM	2362	C	PRO	C	440	14.682	39.494	47.528	1.00	50.04	C
ATOM	2363	O	PRO	C	440	13.806	38.682	47.833	1.00	48.79	O
ATOM	2364	CB	PRO	C	440	15.299	40.948	49.529	1.00	52.43	C
ATOM	2365	CG	PRO	C	440	14.116	40.725	50.414	1.00	52.90	C
ATOM	2366	CD	PRO	C	440	13.050	41.583	49.759	1.00	53.29	C
ATOM	2367	N	SER	C	441	15.653	39.234	46.665	1.00	48.29	N
ATOM	2368	CA	SER	C	441	15.818	37.957	45.984	1.00	46.16	C
ATOM	2369	C	SER	C	441	15.447	36.715	46.802	1.00	44.55	C
ATOM	2370	O	SER	C	441	14.661	35.887	46.361	1.00	41.81	O
ATOM	2371	CB	SER	C	441	17.267	37.852	45.500	1.00	45.60	C
ATOM	2372	OG	SER	C	441	17.634	36.516	45.230	1.00	52.84	O
ATOM	2373	N	HIS	C	442	16.006	36.587	47.998	1.00	46.27	N
ATOM	2374	CA	HIS	C	442	15.732	35.417	48.823	1.00	47.87	C
ATOM	2375	C	HIS	C	442	14.251	35.235	49.123	1.00	47.05	C
ATOM	2376	O	HIS	C	442	13.819	34.172	49.573	1.00	46.64	O
ATOM	2377	CB	HIS	C	442	16.550	35.478	50.125	1.00	49.97	C
ATOM	2378	CG	HIS	C	442	16.105	36.539	51.085	1.00	51.99	C
ATOM	2379	ND1	HIS	C	442	15.059	36.357	51.966	1.00	52.74	N
ATOM	2380	CD2	HIS	C	442	16.582	37.786	51.318	1.00	51.71	C
ATOM	2381	CE1	HIS	C	442	14.913	37.446	52.702	1.00	52.93	C
ATOM	2382	NE2	HIS	C	442	15.824	38.327	52.329	1.00	52.63	N
ATOM	2383	N	CYS	C	443	13.467	36.270	48.861	1.00	46.79	N
ATOM	2384	CA	CYS	C	443	12.042	36.181	49.113	1.00	47.55	C
ATOM	2385	C	CYS	C	443	11.280	35.549	47.957	1.00	44.52	C
ATOM	2386	O	CYS	C	443	10.168	35.066	48.156	1.00	44.07	O
ATOM	2387	CB	CYS	C	443	11.449	37.564	49.396	1.00	52.06	C
ATOM	2388	SG	CYS	C	443	11.991	38.314	50.959	1.00	59.63	S
ATOM	2389	N	TRP	C	444	11.872	35.526	46.762	1.00	41.20	N
ATOM	2390	CA	TRP	C	444	11.158	34.974	45.611	1.00	38.57	C
ATOM	2391	C	TRP	C	444	11.831	34.011	44.615	1.00	36.90	C
ATOM	2392	O	TRP	C	444	11.136	33.181	44.039	1.00	34.96	O

ATOM	2393	CB	TRP	C	444	10.539	36.129	44.812	1.00	35.62	C
ATOM	2394	CG	TRP	C	444	11.547	37.163	44.372	1.00	32.01	C
ATOM	2395	CD1	TRP	C	444	11.911	38.298	45.043	1.00	32.10	C
ATOM	2396	CD2	TRP	C	444	12.341	37.131	43.180	1.00	28.95	C
ATOM	2397	NE1	TRP	C	444	12.887	38.973	44.343	1.00	27.58	N
ATOM	2398	CE2	TRP	C	444	13.171	38.279	43.199	1.00	26.83	C
ATOM	2399	CE3	TRP	C	444	12.434	36.245	42.098	1.00	28.17	C
ATOM	2400	CZ2	TRP	C	444	14.082	38.560	42.182	1.00	25.62	C
ATOM	2401	CZ3	TRP	C	444	13.344	36.523	41.083	1.00	26.33	C
ATOM	2402	CH2	TRP	C	444	14.157	37.672	41.134	1.00	28.83	C
ATOM	2403	N	ILE	C	445	13.143	34.110	44.388	1.00	36.37	N
ATOM	2404	CA	ILE	C	445	13.792	33.226	43.408	1.00	37.21	C
ATOM	2405	C	ILE	C	445	13.515	31.735	43.484	1.00	36.05	C
ATOM	2406	O	ILE	C	445	13.457	31.075	42.449	1.00	35.39	O
ATOM	2407	CB	ILE	C	445	15.343	33.377	43.367	1.00	40.95	C
ATOM	2408	CG1	ILE	C	445	15.898	33.609	44.772	1.00	41.41	C
ATOM	2409	CG2	ILE	C	445	15.735	34.437	42.348	1.00	41.56	C
ATOM	2410	CD1	ILE	C	445	15.849	32.377	45.652	1.00	40.58	C
ATOM	2411	N	SER	C	446	13.359	31.194	44.686	1.00	35.89	N
ATOM	2412	CA	SER	C	446	13.104	29.766	44.828	1.00	36.80	C
ATOM	2413	C	SER	C	446	11.899	29.348	43.999	1.00	36.19	C
ATOM	2414	O	SER	C	446	12.014	28.507	43.105	1.00	37.02	O
ATOM	2415	CB	SER	C	446	12.870	29.404	46.297	1.00	39.47	C
ATOM	2416	OG	SER	C	446	12.486	28.044	46.444	1.00	37.74	O
ATOM	2417	N	GLU	C	447	10.744	29.933	44.292	1.00	33.96	N
ATOM	2418	CA	GLU	C	447	9.532	29.606	43.551	1.00	32.24	C
ATOM	2419	C	GLU	C	447	9.635	30.046	42.080	1.00	29.53	C
ATOM	2420	O	GLU	C	447	9.181	29.339	41.183	1.00	28.78	O
ATOM	2421	CB	GLU	C	447	8.309	30.266	44.211	1.00	34.77	C
ATOM	2422	CG	GLU	C	447	6.975	29.899	43.567	1.00	39.16	C
ATOM	2423	CD	GLU	C	447	6.655	28.416	43.690	1.00	42.43	C
ATOM	2424	OE1	GLU	C	447	5.783	27.919	42.945	1.00	43.28	O
ATOM	2425	OE2	GLU	C	447	7.275	27.744	44.541	1.00	46.08	O
ATOM	2426	N	MET	C	448	10.240	31.201	41.825	1.00	27.08	N
ATOM	2427	CA	MET	C	448	10.352	31.670	40.449	1.00	28.04	C
ATOM	2428	C	MET	C	448	11.130	30.707	39.567	1.00	27.17	C
ATOM	2429	O	MET	C	448	10.719	30.399	38.446	1.00	26.96	O
ATOM	2430	CB	MET	C	448	11.009	33.047	40.381	1.00	28.47	C
ATOM	2431	CG	MET	C	448	10.954	33.671	38.987	1.00	33.18	C
ATOM	2432	SD	MET	C	448	9.381	34.531	38.559	1.00	40.53	S
ATOM	2433	CE	MET	C	448	8.128	33.296	38.951	1.00	38.78	C
ATOM	2434	N	VAL	C	449	12.264	30.248	40.073	1.00	25.81	N
ATOM	2435	CA	VAL	C	449	13.104	29.322	39.339	1.00	26.02	C
ATOM	2436	C	VAL	C	449	12.311	28.054	39.050	1.00	26.19	C
ATOM	2437	O	VAL	C	449	12.356	27.520	37.936	1.00	27.20	O
ATOM	2438	CB	VAL	C	449	14.398	29.025	40.150	1.00	28.96	C
ATOM	2439	CG1	VAL	C	449	14.830	27.598	39.989	1.00	30.72	C
ATOM	2440	CG2	VAL	C	449	15.506	29.964	39.682	1.00	28.33	C
ATOM	2441	N	VAL	C	450	11.560	27.588	40.041	1.00	24.17	N
ATOM	2442	CA	VAL	C	450	10.753	26.391	39.861	1.00	24.70	C
ATOM	2443	C	VAL	C	450	9.697	26.627	38.788	1.00	24.32	C
ATOM	2444	O	VAL	C	450	9.442	25.756	37.946	1.00	24.90	O
ATOM	2445	CB	VAL	C	450	10.056	25.976	41.182	1.00	26.76	C
ATOM	2446	CG1	VAL	C	450	8.980	24.935	40.914	1.00	24.89	C
ATOM	2447	CG2	VAL	C	450	11.077	25.404	42.141	1.00	25.53	C
ATOM	2448	N	GLN	C	451	9.094	27.809	38.802	1.00	23.10	N
ATOM	2449	CA	GLN	C	451	8.063	28.114	37.819	1.00	21.98	C
ATOM	2450	C	GLN	C	451	8.625	28.401	36.437	1.00	19.81	C
ATOM	2451	O	GLN	C	451	7.993	28.077	35.437	1.00	21.40	O
ATOM	2452	CB	GLN	C	451	7.196	29.283	38.294	1.00	22.86	C
ATOM	2453	CG	GLN	C	451	6.279	28.940	39.480	1.00	24.71	C
ATOM	2454	CD	GLN	C	451	5.431	27.670	39.270	1.00	25.91	C
ATOM	2455	OE1	GLN	C	451	5.034	27.346	38.152	1.00	24.23	O

Table 4

ATOM	2456	NE2	GLN	C	451	5.139	26.965	40.362	1.00	23.67	N
ATOM	2457	N	LEU	C	452	9.809	29.006	36.376	1.00	20.61	N
ATOM	2458	CA	LEU	C	452	10.432	29.306	35.095	1.00	19.29	C
ATOM	2459	C	LEU	C	452	10.823	27.985	34.454	1.00	21.21	C
ATOM	2460	O	LEU	C	452	10.801	27.842	33.247	1.00	21.48	O
ATOM	2461	CB	LEU	C	452	11.672	30.179	35.285	1.00	20.34	C
ATOM	2462	CG	LEU	C	452	11.460	31.667	35.608	1.00	22.71	C
ATOM	2463	CD1	LEU	C	452	12.782	32.308	36.035	1.00	19.44	C
ATOM	2464	CD2	LEU	C	452	10.882	32.382	34.384	1.00	20.12	C
ATOM	2465	N	SER	C	453	11.179	27.014	35.280	1.00	22.75	N
ATOM	2466	CA	SER	C	453	11.559	25.702	34.784	1.00	23.36	C
ATOM	2467	C	SER	C	453	10.345	25.013	34.175	1.00	21.69	C
ATOM	2468	O	SER	C	453	10.426	24.423	33.102	1.00	22.03	O
ATOM	2469	CB	SER	C	453	12.109	24.852	35.927	1.00	23.97	C
ATOM	2470	OG	SER	C	453	12.431	23.548	35.475	1.00	30.62	O
ATOM	2471	N	ASP	C	454	9.211	25.092	34.861	1.00	23.68	N
ATOM	2472	CA	ASP	C	454	7.999	24.456	34.353	1.00	23.36	C
ATOM	2473	C	ASP	C	454	7.540	25.068	33.026	1.00	23.44	C
ATOM	2474	O	ASP	C	454	7.067	24.342	32.140	1.00	18.28	O
ATOM	2475	CB	ASP	C	454	6.849	24.559	35.357	1.00	23.97	C
ATOM	2476	CG	ASP	C	454	5.574	23.933	34.818	1.00	28.33	C
ATOM	2477	OD1	ASP	C	454	5.591	22.720	34.540	1.00	30.65	O
ATOM	2478	OD2	ASP	C	454	4.559	24.643	34.646	1.00	32.30	O
ATOM	2479	N	SER	C	455	7.657	26.398	32.911	1.00	20.75	N
ATOM	2480	CA	SER	C	455	7.250	27.105	31.693	1.00	22.16	C
ATOM	2481	C	SER	C	455	8.123	26.745	30.504	1.00	19.56	C
ATOM	2482	O	SER	C	455	7.617	26.526	29.402	1.00	18.40	O
ATOM	2483	CB	SER	C	455	7.293	28.630	31.885	1.00	21.64	C
ATOM	2484	OG	SER	C	455	6.236	29.060	32.720	1.00	24.44	O
ATOM	2485	N	LEU	C	456	9.432	26.700	30.723	1.00	20.20	N
ATOM	2486	CA	LEU	C	456	10.343	26.366	29.639	1.00	22.64	C
ATOM	2487	C	LEU	C	456	10.101	24.929	29.182	1.00	22.40	C
ATOM	2488	O	LEU	C	456	10.031	24.656	27.977	1.00	21.78	O
ATOM	2489	CB	LEU	C	456	11.799	26.558	30.076	1.00	26.72	C
ATOM	2490	CG	LEU	C	456	12.394	27.982	30.077	1.00	30.48	C
ATOM	2491	CD1	LEU	C	456	12.340	28.603	28.678	1.00	31.06	C
ATOM	2492	CD2	LEU	C	456	11.635	28.836	31.022	1.00	31.14	C
ATOM	2493	N	THR	C	457	9.956	24.018	30.138	1.00	22.09	N
ATOM	2494	CA	THR	C	457	9.707	22.618	29.810	1.00	27.16	C
ATOM	2495	C	THR	C	457	8.389	22.472	29.049	1.00	27.09	C
ATOM	2496	O	THR	C	457	8.306	21.682	28.109	1.00	29.28	O
ATOM	2497	CB	THR	C	457	9.671	21.726	31.077	1.00	29.54	C
ATOM	2498	OG1	THR	C	457	10.934	21.797	31.748	1.00	34.82	O
ATOM	2499	CG2	THR	C	457	9.408	20.276	30.702	1.00	31.05	C
ATOM	2500	N	ASP	C	458	7.361	23.221	29.444	1.00	25.79	N
ATOM	2501	CA	ASP	C	458	6.087	23.149	28.731	1.00	25.04	C
ATOM	2502	C	ASP	C	458	6.288	23.698	27.322	1.00	24.70	C
ATOM	2503	O	ASP	C	458	5.719	23.198	26.357	1.00	23.65	O
ATOM	2504	CB	ASP	C	458	5.003	24.004	29.399	1.00	26.32	C
ATOM	2505	CG	ASP	C	458	4.630	23.524	30.782	1.00	27.77	C
ATOM	2506	OD1	ASP	C	458	4.830	22.333	31.084	1.00	31.33	O
ATOM	2507	OD2	ASP	C	458	4.111	24.348	31.567	1.00	28.00	O
ATOM	2508	N	LEU	C	459	7.083	24.756	27.215	1.00	25.26	N
ATOM	2509	CA	LEU	C	459	7.337	25.393	25.919	1.00	27.22	C
ATOM	2510	C	LEU	C	459	8.099	24.451	24.982	1.00	28.01	C
ATOM	2511	O	LEU	C	459	7.850	24.404	23.776	1.00	27.24	O
ATOM	2512	CB	LEU	C	459	8.137	26.690	26.122	1.00	24.90	C
ATOM	2513	CG	LEU	C	459	8.385	27.586	24.908	1.00	26.22	C
ATOM	2514	CD1	LEU	C	459	7.047	28.089	24.381	1.00	29.21	C
ATOM	2515	CD2	LEU	C	459	9.266	28.784	25.291	1.00	27.97	C
ATOM	2516	N	LEU	C	460	9.024	23.689	25.551	1.00	29.41	N
ATOM	2517	CA	LEU	C	460	9.831	22.770	24.764	1.00	30.45	C
ATOM	2518	C	LEU	C	460	8.951	21.882	23.891	1.00	30.83	C

ATOM	2519	O	LEU	C	460	9.204	21.730	22.697	1.00	32.84	O
ATOM	2520	CB	LEU	C	460	10.691	21.921	25.700	1.00	29.64	C
ATOM	2521	CG	LEU	C	460	11.838	21.136	25.083	1.00	28.50	C
ATOM	2522	CD1	LEU	C	460	12.846	22.088	24.450	1.00	24.94	C
ATOM	2523	CD2	LEU	C	460	12.495	20.312	26.177	1.00	28.74	C
ATOM	2524	N	ASP	C	461	7.906	21.315	24.480	1.00	31.68	N
ATOM	2525	CA	ASP	C	461	6.988	20.445	23.746	1.00	33.28	C
ATOM	2526	C	ASP	C	461	6.234	21.096	22.581	1.00	31.27	C
ATOM	2527	O	ASP	C	461	5.533	20.412	21.834	1.00	30.90	O
ATOM	2528	CB	ASP	C	461	5.974	19.822	24.708	1.00	38.72	C
ATOM	2529	CG	ASP	C	461	6.624	18.885	25.705	1.00	46.26	C
ATOM	2530	OD1	ASP	C	461	7.253	19.374	26.674	1.00	48.70	O
ATOM	2531	OD2	ASP	C	461	6.521	17.653	25.510	1.00	50.00	O
ATOM	2532	N	LYS	C	462	6.359	22.408	22.425	1.00	27.57	N
ATOM	2533	CA	LYS	C	462	5.680	23.080	21.327	1.00	25.35	C
ATOM	2534	C	LYS	C	462	6.564	23.086	20.079	1.00	23.43	C
ATOM	2535	O	LYS	C	462	6.146	23.532	19.019	1.00	24.64	O
ATOM	2536	CB	LYS	C	462	5.324	24.518	21.716	1.00	24.71	C
ATOM	2537	CG	LYS	C	462	4.388	24.630	22.919	1.00	25.36	C
ATOM	2538	CD	LYS	C	462	3.081	23.877	22.675	1.00	29.01	C
ATOM	2539	CE	LYS	C	462	2.079	24.115	23.800	1.00	31.24	C
ATOM	2540	NZ	LYS	C	462	2.665	23.788	25.129	1.00	34.34	N
ATOM	2541	N	PHE	C	463	7.781	22.580	20.214	1.00	23.53	N
ATOM	2542	CA	PHE	C	463	8.726	22.543	19.101	1.00	25.78	C
ATOM	2543	C	PHE	C	463	9.330	21.166	18.891	1.00	26.15	C
ATOM	2544	O	PHE	C	463	9.116	20.259	19.690	1.00	22.61	O
ATOM	2545	CB	PHE	C	463	9.871	23.544	19.334	1.00	25.16	C
ATOM	2546	CG	PHE	C	463	9.401	24.955	19.555	1.00	25.81	C
ATOM	2547	CD1	PHE	C	463	9.080	25.403	20.834	1.00	25.56	C
ATOM	2548	CD2	PHE	C	463	9.218	25.813	18.479	1.00	21.79	C
ATOM	2549	CE1	PHE	C	463	8.581	26.681	21.037	1.00	21.95	C
ATOM	2550	CE2	PHE	C	463	8.719	27.095	18.671	1.00	23.55	C
ATOM	2551	CZ	PHE	C	463	8.399	27.527	19.955	1.00	25.05	C
ATOM	2552	N	SER	C	464	10.082	21.030	17.801	1.00	28.14	N
ATOM	2553	CA	SER	C	464	10.765	19.791	17.481	1.00	32.33	C
ATOM	2554	C	SER	C	464	12.166	20.179	17.031	1.00	32.53	C
ATOM	2555	O	SER	C	464	12.357	21.206	16.388	1.00	34.11	O
ATOM	2556	CB	SER	C	464	10.025	19.021	16.377	1.00	33.88	C
ATOM	2557	OG	SER	C	464	10.234	19.586	15.099	1.00	37.24	O
ATOM	2558	N	ASN	C	465	13.151	19.364	17.388	1.00	35.11	N
ATOM	2559	CA	ASN	C	465	14.531	19.654	17.041	1.00	36.23	C
ATOM	2560	C	ASN	C	465	14.801	19.559	15.541	1.00	38.36	C
ATOM	2561	O	ASN	C	465	14.064	18.907	14.798	1.00	35.10	O
ATOM	2562	CB	ASN	C	465	15.469	18.716	17.797	1.00	36.73	C
ATOM	2563	CG	ASN	C	465	16.803	19.363	18.112	1.00	38.14	C
ATOM	2564	OD1	ASN	C	465	17.235	20.283	17.424	1.00	38.06	O
ATOM	2565	ND2	ASN	C	465	17.466	18.876	19.151	1.00	39.58	N
ATOM	2566	N	ILE	C	466	15.868	20.225	15.111	1.00	41.35	N
ATOM	2567	CA	ILE	C	466	16.273	20.254	13.711	1.00	45.74	C
ATOM	2568	C	ILE	C	466	17.754	19.893	13.603	1.00	49.28	C
ATOM	2569	O	ILE	C	466	18.561	20.290	14.449	1.00	49.27	O
ATOM	2570	CB	ILE	C	466	16.052	21.655	13.114	1.00	45.87	C
ATOM	2571	CG1	ILE	C	466	14.573	22.030	13.223	1.00	46.31	C
ATOM	2572	CG2	ILE	C	466	16.517	21.688	11.668	1.00	46.14	C
ATOM	2573	CD1	ILE	C	466	14.243	23.442	12.767	1.00	46.65	C
ATOM	2574	N	SER	C	467	18.108	19.154	12.555	1.00	51.80	N
ATOM	2575	CA	SER	C	467	19.492	18.723	12.354	1.00	55.48	C
ATOM	2576	C	SER	C	467	20.470	19.880	12.114	1.00	56.29	C
ATOM	2577	O	SER	C	467	21.443	20.044	12.856	1.00	57.94	O
ATOM	2578	CB	SER	C	467	19.561	17.732	11.188	1.00	56.27	C
ATOM	2579	OG	SER	C	467	20.812	17.065	11.150	1.00	59.43	O
ATOM	2580	N	GLU	C	468	20.217	20.676	11.078	1.00	56.47	N
ATOM	2581	CA	GLU	C	468	21.085	21.810	10.766	1.00	56.36	C

ATOM	2582	C	GLU	C	468	20.504	23.113	11.309	1.00	54.13	C
ATOM	2583	O	GLU	C	468	19.343	23.432	11.055	1.00	55.55	O
ATOM	2584	CB	GLU	C	468	21.257	21.951	9.253	1.00	58.77	C
ATOM	2585	CG	GLU	C	468	21.898	20.764	8.562	1.00	63.85	C
ATOM	2586	CD	GLU	C	468	21.942	20.944	7.053	1.00	66.73	C
ATOM	2587	OE1	GLU	C	468	20.860	20.938	6.422	1.00	67.58	O
ATOM	2588	OE2	GLU	C	468	23.055	21.102	6.500	1.00	67.99	O
ATOM	2589	N	GLY	C	469	21.309	23.862	12.055	1.00	50.79	N
ATOM	2590	CA	GLY	C	469	20.842	25.131	12.586	1.00	47.17	C
ATOM	2591	C	GLY	C	469	20.508	25.143	14.065	1.00	45.11	C
ATOM	2592	O	GLY	C	469	20.180	24.108	14.649	1.00	44.06	O
ATOM	2593	N	LEU	C	470	20.589	26.325	14.670	1.00	41.53	N
ATOM	2594	CA	LEU	C	470	20.282	26.483	16.085	1.00	39.49	C
ATOM	2595	C	LEU	C	470	18.775	26.660	16.302	1.00	36.77	C
ATOM	2596	O	LEU	C	470	18.283	27.779	16.444	1.00	38.40	O
ATOM	2597	CB	LEU	C	470	21.028	27.688	16.653	1.00	40.94	C
ATOM	2598	CG	LEU	C	470	20.817	27.897	18.152	1.00	44.12	C
ATOM	2599	CD1	LEU	C	470	21.261	26.630	18.898	1.00	45.02	C
ATOM	2600	CD2	LEU	C	470	21.587	29.121	18.629	1.00	41.73	C
ATOM	2601	N	SER	C	471	18.063	25.539	16.343	1.00	31.88	N
ATOM	2602	CA	SER	C	471	16.620	25.505	16.525	1.00	27.37	C
ATOM	2603	C	SER	C	471	16.139	26.114	17.835	1.00	24.48	C
ATOM	2604	O	SER	C	471	16.896	26.240	18.796	1.00	24.37	O
ATOM	2605	CB	SER	C	471	16.130	24.055	16.462	1.00	27.40	C
ATOM	2606	OG	SER	C	471	16.464	23.358	17.658	1.00	23.30	O
ATOM	2607	N	ASN	C	472	14.864	26.480	17.874	1.00	22.24	N
ATOM	2608	CA	ASN	C	472	14.288	27.036	19.095	1.00	22.64	C
ATOM	2609	C	ASN	C	472	14.289	25.927	20.135	1.00	20.43	C
ATOM	2610	O	ASN	C	472	14.493	26.166	21.323	1.00	19.53	O
ATOM	2611	CB	ASN	C	472	12.852	27.518	18.854	1.00	20.78	C
ATOM	2612	CG	ASN	C	472	12.795	28.860	18.139	1.00	21.60	C
ATOM	2613	OD1	ASN	C	472	11.747	29.262	17.624	1.00	25.78	O
ATOM	2614	ND2	ASN	C	472	13.912	29.563	18.118	1.00	21.36	N
ATOM	2615	N	TYR	C	473	14.062	24.705	19.674	1.00	21.65	N
ATOM	2616	CA	TYR	C	473	14.039	23.551	20.562	1.00	20.71	C
ATOM	2617	C	TYR	C	473	15.352	23.414	21.344	1.00	19.56	C
ATOM	2618	O	TYR	C	473	15.355	23.365	22.585	1.00	17.41	O
ATOM	2619	CB	TYR	C	473	13.786	22.275	19.753	1.00	22.94	C
ATOM	2620	CG	TYR	C	473	13.765	21.026	20.598	1.00	24.69	C
ATOM	2621	CD1	TYR	C	473	12.580	20.570	21.166	1.00	25.55	C
ATOM	2622	CD2	TYR	C	473	14.940	20.329	20.872	1.00	25.72	C
ATOM	2623	CE1	TYR	C	473	12.559	19.454	21.991	1.00	27.45	C
ATOM	2624	CE2	TYR	C	473	14.930	19.213	21.695	1.00	30.34	C
ATOM	2625	CZ	TYR	C	473	13.735	18.784	22.253	1.00	28.31	C
ATOM	2626	OH	TYR	C	473	13.722	17.700	23.101	1.00	34.15	O
ATOM	2627	N	SER	C	474	16.475	23.365	20.636	1.00	20.25	N
ATOM	2628	CA	SER	C	474	17.757	23.212	21.331	1.00	23.68	C
ATOM	2629	C	SER	C	474	18.106	24.402	22.224	1.00	22.92	C
ATOM	2630	O	SER	C	474	18.703	24.227	23.290	1.00	23.47	O
ATOM	2631	CB	SER	C	474	18.894	22.932	20.336	1.00	23.74	C
ATOM	2632	OG	SER	C	474	19.008	23.954	19.372	1.00	33.18	O
ATOM	2633	N	ILE	C	475	17.732	25.610	21.810	1.00	22.40	N
ATOM	2634	CA	ILE	C	475	18.004	26.785	22.638	1.00	20.76	C
ATOM	2635	C	ILE	C	475	17.202	26.653	23.925	1.00	21.49	C
ATOM	2636	O	ILE	C	475	17.721	26.876	25.025	1.00	19.81	O
ATOM	2637	CB	ILE	C	475	17.582	28.102	21.956	1.00	21.73	C
ATOM	2638	CG1	ILE	C	475	18.446	28.365	20.727	1.00	19.99	C
ATOM	2639	CG2	ILE	C	475	17.707	29.265	22.940	1.00	19.73	C
ATOM	2640	CD1	ILE	C	475	18.116	29.694	20.032	1.00	24.22	C
ATOM	2641	N	ILE	C	476	15.933	26.280	23.800	1.00	21.24	N
ATOM	2642	CA	ILE	C	476	15.104	26.129	24.997	1.00	20.97	C
ATOM	2643	C	ILE	C	476	15.642	24.986	25.853	1.00	20.70	C
ATOM	2644	O	ILE	C	476	15.673	25.079	27.084	1.00	19.30	O

Table 4

ATOM	2645	CB	ILE	C	476	13.619	25.815	24.654	1.00	21.79	C
ATOM	2646	CG1	ILE	C	476	12.958	27.026	24.002	1.00	22.13	C
ATOM	2647	CG2	ILE	C	476	12.860	25.435	25.925	1.00	16.53	C
ATOM	2648	CD1	ILE	C	476	11.744	26.657	23.170	1.00	21.09	C
ATOM	2649	N	ASP	C	477	16.061	23.907	25.200	1.00	23.82	N
ATOM	2650	CA	ASP	C	477	16.578	22.740	25.918	1.00	25.99	C
ATOM	2651	C	ASP	C	477	17.739	23.163	26.820	1.00	26.65	C
ATOM	2652	O	ASP	C	477	17.831	22.725	27.966	1.00	27.58	O
ATOM	2653	CB	ASP	C	477	17.027	21.670	24.925	1.00	30.12	C
ATOM	2654	CG	ASP	C	477	17.187	20.295	25.568	1.00	36.38	C
ATOM	2655	OD1	ASP	C	477	17.789	19.407	24.919	1.00	39.97	O
ATOM	2656	OD2	ASP	C	477	16.707	20.094	26.708	1.00	36.57	O
ATOM	2657	N	LYS	C	478	18.612	24.030	26.317	1.00	27.68	N
ATOM	2658	CA	LYS	C	478	19.736	24.519	27.119	1.00	29.23	C
ATOM	2659	C	LYS	C	478	19.227	25.353	28.300	1.00	29.75	C
ATOM	2660	O	LYS	C	478	19.727	25.230	29.427	1.00	31.70	O
ATOM	2661	CB	LYS	C	478	20.673	25.398	26.284	1.00	30.85	C
ATOM	2662	CG	LYS	C	478	21.161	24.782	24.983	1.00	38.41	C
ATOM	2663	CD	LYS	C	478	22.194	23.690	25.197	1.00	42.83	C
ATOM	2664	CE	LYS	C	478	22.812	23.268	23.867	1.00	46.03	C
ATOM	2665	NZ	LYS	C	478	23.965	22.340	24.062	1.00	50.46	N
ATOM	2666	N	LEU	C	479	18.244	26.213	28.053	1.00	27.40	N
ATOM	2667	CA	LEU	C	479	17.719	27.045	29.135	1.00	28.07	C
ATOM	2668	C	LEU	C	479	17.145	26.193	30.258	1.00	24.73	C
ATOM	2669	O	LEU	C	479	17.341	26.498	31.434	1.00	22.84	O
ATOM	2670	CB	LEU	C	479	16.655	28.020	28.611	1.00	26.25	C
ATOM	2671	CG	LEU	C	479	17.165	29.012	27.560	1.00	31.77	C
ATOM	2672	CD1	LEU	C	479	16.070	30.035	27.264	1.00	31.46	C
ATOM	2673	CD2	LEU	C	479	18.437	29.712	28.056	1.00	29.08	C
ATOM	2674	N	VAL	C	480	16.449	25.121	29.889	1.00	26.01	N
ATOM	2675	CA	VAL	C	480	15.858	24.200	30.861	1.00	26.10	C
ATOM	2676	C	VAL	C	480	16.934	23.591	31.754	1.00	28.41	C
ATOM	2677	O	VAL	C	480	16.794	23.536	32.981	1.00	30.02	O
ATOM	2678	CB	VAL	C	480	15.101	23.033	30.150	1.00	27.48	C
ATOM	2679	CG1	VAL	C	480	14.709	21.944	31.174	1.00	22.70	C
ATOM	2680	CG2	VAL	C	480	13.847	23.573	29.438	1.00	22.45	C
ATOM	2681	N	ASN	C	481	18.015	23.134	31.138	1.00	29.31	N
ATOM	2682	CA	ASN	C	481	19.091	22.523	31.904	1.00	31.74	C
ATOM	2683	C	ASN	C	481	19.737	23.501	32.855	1.00	32.23	C
ATOM	2684	O	ASN	C	481	20.096	23.137	33.968	1.00	34.43	O
ATOM	2685	CB	ASN	C	481	20.135	21.926	30.968	1.00	31.52	C
ATOM	2686	CG	ASN	C	481	19.678	20.618	30.381	1.00	36.47	C
ATOM	2687	OD1	ASN	C	481	19.393	19.673	31.118	1.00	37.95	O
ATOM	2688	ND2	ASN	C	481	19.592	20.549	29.050	1.00	38.74	N
ATOM	2689	N	ILE	C	482	19.890	24.745	32.424	1.00	31.94	N
ATOM	2690	CA	ILE	C	482	20.473	25.739	33.296	1.00	32.92	C
ATOM	2691	C	ILE	C	482	19.513	26.004	34.445	1.00	33.63	C
ATOM	2692	O	ILE	C	482	19.916	26.019	35.612	1.00	33.56	O
ATOM	2693	CB	ILE	C	482	20.737	27.064	32.550	1.00	35.61	C
ATOM	2694	CG1	ILE	C	482	21.821	26.853	31.489	1.00	36.13	C
ATOM	2695	CG2	ILE	C	482	21.172	28.145	33.544	1.00	37.84	C
ATOM	2696	CD1	ILE	C	482	22.014	28.027	30.560	1.00	35.81	C
ATOM	2697	N	VAL	C	483	18.235	26.194	34.125	1.00	33.38	N
ATOM	2698	CA	VAL	C	483	17.268	26.490	35.170	1.00	34.28	C
ATOM	2699	C	VAL	C	483	17.063	25.317	36.115	1.00	34.62	C
ATOM	2700	O	VAL	C	483	16.742	25.518	37.283	1.00	31.29	O
ATOM	2701	CB	VAL	C	483	15.911	26.951	34.586	1.00	35.64	C
ATOM	2702	CG1	VAL	C	483	14.940	27.255	35.710	1.00	36.63	C
ATOM	2703	CG2	VAL	C	483	16.109	28.199	33.745	1.00	36.55	C
ATOM	2704	N	ASP	C	484	17.240	24.096	35.616	1.00	36.84	N
ATOM	2705	CA	ASP	C	484	17.106	22.922	36.473	1.00	39.62	C
ATOM	2706	C	ASP	C	484	18.272	22.892	37.450	1.00	38.62	C
ATOM	2707	O	ASP	C	484	18.115	22.499	38.603	1.00	39.47	O

ATOM	2708	CB	ASP	C	484	17.099	21.629	35.658	1.00	42.89	C
ATOM	2709	CG	ASP	C	484	15.742	21.319	35.072	1.00	47.18	C
ATOM	2710	OD1	ASP	C	484	14.742	21.900	35.549	1.00	50.05	O
ATOM	2711	OD2	ASP	C	484	15.673	20.483	34.143	1.00	52.07	O
ATOM	2712	N	ASP	C	485	19.446	23.303	36.988	1.00	38.05	N
ATOM	2713	CA	ASP	C	485	20.607	23.337	37.865	1.00	40.50	C
ATOM	2714	C	ASP	C	485	20.321	24.271	39.035	1.00	41.55	C
ATOM	2715	O	ASP	C	485	20.628	23.949	40.186	1.00	42.39	O
ATOM	2716	CB	ASP	C	485	21.843	23.830	37.117	1.00	42.31	C
ATOM	2717	CG	ASP	C	485	22.286	22.873	36.036	1.00	46.90	C
ATOM	2718	OD1	ASP	C	485	21.953	21.672	36.148	1.00	46.07	O
ATOM	2719	OD2	ASP	C	485	22.974	23.316	35.086	1.00	47.88	O
ATOM	2720	N	LEU	C	486	19.735	25.427	38.730	1.00	41.28	N
ATOM	2721	CA	LEU	C	486	19.388	26.415	39.746	1.00	42.01	C
ATOM	2722	C	LEU	C	486	18.341	25.867	40.703	1.00	41.60	C
ATOM	2723	O	LEU	C	486	18.346	26.190	41.888	1.00	40.42	O
ATOM	2724	CB	LEU	C	486	18.857	27.691	39.091	1.00	41.85	C
ATOM	2725	CG	LEU	C	486	19.868	28.389	38.185	1.00	43.42	C
ATOM	2726	CD1	LEU	C	486	19.212	29.559	37.452	1.00	43.01	C
ATOM	2727	CD2	LEU	C	486	21.042	28.856	39.034	1.00	42.44	C
ATOM	2728	N	VAL	C	487	17.440	25.039	40.190	1.00	42.89	N
ATOM	2729	CA	VAL	C	487	16.413	24.465	41.045	1.00	45.33	C
ATOM	2730	C	VAL	C	487	17.095	23.559	42.063	1.00	48.13	C
ATOM	2731	O	VAL	C	487	16.747	23.581	43.248	1.00	46.85	O
ATOM	2732	CB	VAL	C	487	15.377	23.647	40.241	1.00	43.87	C
ATOM	2733	CG1	VAL	C	487	14.393	22.976	41.185	1.00	40.38	C
ATOM	2734	CG2	VAL	C	487	14.637	24.553	39.285	1.00	43.12	C
ATOM	2735	N	GLU	C	488	18.074	22.779	41.605	1.00	50.31	N
ATOM	2736	CA	GLU	C	488	18.808	21.883	42.498	1.00	54.58	C
ATOM	2737	C	GLU	C	488	19.626	22.667	43.527	1.00	56.13	C
ATOM	2738	O	GLU	C	488	19.730	22.262	44.678	1.00	56.58	O
ATOM	2739	CB	GLU	C	488	19.755	20.965	41.712	1.00	56.04	C
ATOM	2740	CG	GLU	C	488	19.088	20.057	40.682	1.00	59.98	C
ATOM	2741	CD	GLU	C	488	19.720	18.669	40.620	1.00	62.60	C
ATOM	2742	OE1	GLU	C	488	19.446	17.861	41.533	1.00	61.75	O
ATOM	2743	OE2	GLU	C	488	20.493	18.385	39.671	1.00	63.45	O
ATOM	2744	N	CYS	C	489	20.204	23.787	43.107	1.00	59.19	N
ATOM	2745	CA	CYS	C	489	21.023	24.614	43.991	1.00	62.50	C
ATOM	2746	C	CYS	C	489	20.217	25.331	45.065	1.00	64.25	C
ATOM	2747	O	CYS	C	489	20.748	25.686	46.117	1.00	62.95	O
ATOM	2748	CB	CYS	C	489	21.784	25.651	43.175	1.00	64.14	C
ATOM	2749	SG	CYS	C	489	22.738	24.935	41.835	1.00	70.99	S
ATOM	2750	N	VAL	C	490	18.938	25.557	44.788	1.00	66.42	N
ATOM	2751	CA	VAL	C	490	18.065	26.231	45.736	1.00	68.53	C
ATOM	2752	C	VAL	C	490	17.555	25.246	46.785	1.00	70.15	C
ATOM	2753	O	VAL	C	490	17.107	25.650	47.858	1.00	70.55	O
ATOM	2754	CB	VAL	C	490	16.864	26.885	45.012	1.00	69.36	C
ATOM	2755	CG1	VAL	C	490	15.909	27.505	46.023	1.00	69.33	C
ATOM	2756	CG2	VAL	C	490	17.365	27.948	44.043	1.00	68.45	C
ATOM	2757	N	LYS	C	491	17.638	23.955	46.473	1.00	71.74	N
ATOM	2758	CA	LYS	C	491	17.183	22.911	47.387	1.00	73.62	C
ATOM	2759	C	LYS	C	491	18.264	22.538	48.396	1.00	75.55	C
ATOM	2760	O	LYS	C	491	18.383	21.376	48.785	1.00	75.66	O
ATOM	2761	CB	LYS	C	491	16.755	21.681	46.603	1.00	72.92	C
ATOM	2762	N	GLU	C	492	19.042	23.535	48.814	1.00	78.00	N
ATOM	2763	CA	GLU	C	492	20.121	23.351	49.782	1.00	79.84	C
ATOM	2764	C	GLU	C	492	21.012	24.589	49.802	1.00	81.20	C
ATOM	2765	O	GLU	C	492	22.126	24.564	49.283	1.00	81.52	O
ATOM	2766	CB	GLU	C	492	20.951	22.119	49.425	1.00	80.18	C
ATOM	2767	N	ASN	C	493	20.518	25.669	50.401	1.00	83.14	N
ATOM	2768	CA	ASN	C	493	21.277	26.916	50.481	1.00	84.85	C
ATOM	2769	C	ASN	C	493	21.948	27.097	51.845	1.00	86.58	C
ATOM	2770	O	ASN	C	493	23.088	26.670	52.050	1.00	86.98	O

ATOM	2771	CB	ASN	C	493	20.362	28.100	50.190	1.00	84.61	C
ATOM	2772	N	SER	C	494	21.238	27.736	52.772	1.00	88.38	N
ATOM	2773	CA	SER	C	494	21.759	27.980	54.116	1.00	89.76	C
ATOM	2774	C	SER	C	494	20.629	27.992	55.145	1.00	90.86	C
ATOM	2775	O	SER	C	494	20.509	27.076	55.961	1.00	91.08	O
ATOM	2776	CB	SER	C	494	22.509	29.309	54.150	1.00	89.25	C
ATOM	2777	N	SER	C	495	19.808	29.037	55.095	1.00	91.91	N
ATOM	2778	CA	SER	C	495	18.678	29.195	56.006	1.00	92.32	C
ATOM	2779	C	SER	C	495	17.985	30.529	55.729	1.00	92.84	C
ATOM	2780	O	SER	C	495	16.815	30.720	56.075	1.00	92.80	O
ATOM	2781	CB	SER	C	495	19.159	29.141	57.455	1.00	91.90	C
ATOM	2782	N	LYS	C	496	18.718	31.445	55.102	1.00	92.97	N
ATOM	2783	CA	LYS	C	496	18.194	32.766	54.770	1.00	92.97	C
ATOM	2784	C	LYS	C	496	17.581	32.773	53.372	1.00	92.72	C
ATOM	2785	O	LYS	C	496	18.022	33.512	52.488	1.00	92.28	O
ATOM	2786	CB	LYS	C	496	19.309	33.808	54.859	1.00	93.19	C
ATOM	2787	N	ASP	C	497	16.563	31.939	53.183	1.00	92.13	N
ATOM	2788	CA	ASP	C	497	15.865	31.833	51.908	1.00	92.02	C
ATOM	2789	C	ASP	C	497	14.435	31.359	52.156	1.00	92.20	C
ATOM	2790	O	ASP	C	497	14.203	30.458	52.964	1.00	92.35	O
ATOM	2791	CB	ASP	C	497	16.593	30.858	50.989	1.00	91.57	C
ATOM	2792	N	LEU	C	498	13.478	31.970	51.464	1.00	92.05	N
ATOM	2793	CA	LEU	C	498	12.075	31.605	51.622	1.00	91.73	C
ATOM	2794	C	LEU	C	498	11.645	30.576	50.580	1.00	91.81	C
ATOM	2795	O	LEU	C	498	11.058	30.924	49.555	1.00	92.52	O
ATOM	2796	CB	LEU	C	498	11.198	32.850	51.521	1.00	91.53	C
ATOM	2797	N	LYS	C	499	11.941	29.308	50.845	1.00	91.61	N
ATOM	2798	CA	LYS	C	499	11.579	28.233	49.930	1.00	91.43	C
ATOM	2799	C	LYS	C	499	10.117	27.847	50.133	1.00	91.66	C
ATOM	2800	O	LYS	C	499	9.603	26.949	49.466	1.00	91.71	O
ATOM	2801	CB	LYS	C	499	12.478	27.025	50.159	1.00	90.82	C
ATOM	2802	N	LYS	C	500	9.455	28.538	51.056	1.00	92.00	N
ATOM	2803	CA	LYS	C	500	8.050	28.282	51.362	1.00	92.42	C
ATOM	2804	C	LYS	C	500	7.141	28.565	50.165	1.00	92.65	C
ATOM	2805	O	LYS	C	500	7.499	28.274	49.020	1.00	93.28	O
ATOM	2806	CB	LYS	C	500	7.618	29.126	52.559	1.00	92.24	C
ATOM	2807	N	SER	C	501	5.968	29.133	50.439	1.00	92.35	N
ATOM	2808	CA	SER	C	501	4.985	29.453	49.404	1.00	91.78	C
ATOM	2809	C	SER	C	501	4.381	28.168	48.836	1.00	91.55	C
ATOM	2810	O	SER	C	501	3.246	28.167	48.348	1.00	90.99	O
ATOM	2811	CB	SER	C	501	5.637	30.273	48.284	1.00	91.58	C
ATOM	2812	N	PHE	C	502	5.149	27.081	48.917	1.00	91.35	N
ATOM	2813	CA	PHE	C	502	4.736	25.767	48.425	1.00	90.43	C
ATOM	2814	C	PHE	C	502	4.320	25.841	46.961	1.00	89.44	C
ATOM	2815	O	PHE	C	502	5.155	25.771	46.058	1.00	89.03	O
ATOM	2816	CB	PHE	C	502	3.584	25.227	49.274	1.00	90.98	C
ATOM	2817	N	LYS	C	503	3.019	25.976	46.740	1.00	88.39	N
ATOM	2818	CA	LYS	C	503	2.464	26.081	45.400	1.00	87.51	C
ATOM	2819	C	LYS	C	503	1.156	26.860	45.503	1.00	86.08	C
ATOM	2820	O	LYS	C	503	0.238	26.451	46.220	1.00	86.05	O
ATOM	2821	CB	LYS	C	503	2.202	24.691	44.814	1.00	88.05	C
ATOM	2822	CG	LYS	C	503	1.839	24.711	43.336	1.00	88.57	C
ATOM	2823	CD	LYS	C	503	1.419	23.338	42.832	1.00	88.37	C
ATOM	2824	CE	LYS	C	503	0.106	22.899	43.452	1.00	87.87	C
ATOM	2825	NZ	LYS	C	503	-0.417	21.679	42.790	1.00	87.78	N
ATOM	2826	N	SER	C	504	1.083	27.987	44.800	1.00	83.62	N
ATOM	2827	CA	SER	C	504	-0.109	28.826	44.821	1.00	80.69	C
ATOM	2828	C	SER	C	504	-0.033	30.080	43.944	1.00	77.49	C
ATOM	2829	O	SER	C	504	-0.748	31.050	44.190	1.00	78.09	O
ATOM	2830	CB	SER	C	504	-0.423	29.238	46.266	1.00	82.35	C
ATOM	2831	OG	SER	C	504	0.708	29.822	46.895	1.00	83.35	O
ATOM	2832	N	PRO	C	505	0.830	30.087	42.914	1.00	73.98	N
ATOM	2833	CA	PRO	C	505	0.891	31.293	42.082	1.00	70.42	C

ATOM	2834	C	PRO	C	505	-0.127	31.246	40.945	1.00	66.52	C
ATOM	2835	O	PRO	C	505	-0.414	30.176	40.411	1.00	66.27	O
ATOM	2836	CB	PRO	C	505	2.326	31.277	41.581	1.00	70.47	C
ATOM	2837	CG	PRO	C	505	2.546	29.816	41.349	1.00	73.11	C
ATOM	2838	CD	PRO	C	505	1.926	29.160	42.571	1.00	73.18	C
ATOM	2839	N	GLU	C	506	-0.672	32.402	40.579	1.00	62.89	N
ATOM	2840	CA	GLU	C	506	-1.659	32.459	39.504	1.00	60.06	C
ATOM	2841	C	GLU	C	506	-0.999	32.543	38.125	1.00	56.43	C
ATOM	2842	O	GLU	C	506	-0.067	33.321	37.909	1.00	53.61	O
ATOM	2843	CB	GLU	C	506	-2.597	33.657	39.686	1.00	60.85	C
ATOM	2844	CG	GLU	C	506	-2.055	34.963	39.137	1.00	63.66	C
ATOM	2845	CD	GLU	C	506	-3.083	36.074	39.155	1.00	66.22	C
ATOM	2846	OE1	GLU	C	506	-4.181	35.889	38.591	1.00	66.44	O
ATOM	2847	OE2	GLU	C	506	-2.791	37.141	39.732	1.00	69.61	O
ATOM	2848	N	PRO	C	507	-1.483	31.730	37.174	1.00	53.50	N
ATOM	2849	CA	PRO	C	507	-0.959	31.696	35.808	1.00	50.59	C
ATOM	2850	C	PRO	C	507	-1.172	33.025	35.096	1.00	47.75	C
ATOM	2851	O	PRO	C	507	-2.249	33.617	35.170	1.00	47.48	O
ATOM	2852	CB	PRO	C	507	-1.762	30.569	35.155	1.00	51.01	C
ATOM	2853	CG	PRO	C	507	-2.109	29.678	36.309	1.00	52.55	C
ATOM	2854	CD	PRO	C	507	-2.491	30.672	37.371	1.00	52.89	C
ATOM	2855	N	ARG	C	508	-0.142	33.497	34.408	1.00	43.60	N
ATOM	2856	CA	ARG	C	508	-0.245	34.750	33.675	1.00	39.58	C
ATOM	2857	C	ARG	C	508	0.357	34.575	32.294	1.00	35.30	C
ATOM	2858	O	ARG	C	508	1.231	33.738	32.102	1.00	31.03	O
ATOM	2859	CB	ARG	C	508	0.471	35.870	34.427	1.00	40.31	C
ATOM	2860	CG	ARG	C	508	-0.213	36.255	35.716	1.00	44.11	C
ATOM	2861	CD	ARG	C	508	0.431	37.486	36.326	1.00	48.76	C
ATOM	2862	NE	ARG	C	508	0.731	38.514	35.328	1.00	47.99	N
ATOM	2863	CZ	ARG	C	508	1.181	39.729	35.631	1.00	50.50	C
ATOM	2864	NH1	ARG	C	508	1.371	40.059	36.904	1.00	50.11	N
ATOM	2865	NH2	ARG	C	508	1.457	40.609	34.670	1.00	49.02	N
ATOM	2866	N	LEU	C	509	-0.126	35.362	31.339	1.00	32.29	N
ATOM	2867	CA	LEU	C	509	0.359	35.294	29.965	1.00	31.11	C
ATOM	2868	C	LEU	C	509	1.333	36.427	29.663	1.00	28.63	C
ATOM	2869	O	LEU	C	509	1.058	37.603	29.941	1.00	24.90	O
ATOM	2870	CB	LEU	C	509	-0.810	35.359	28.978	1.00	31.46	C
ATOM	2871	CG	LEU	C	509	-1.865	34.252	29.051	1.00	34.91	C
ATOM	2872	CD1	LEU	C	509	-2.915	34.504	27.975	1.00	34.69	C
ATOM	2873	CD2	LEU	C	509	-1.217	32.878	28.873	1.00	33.71	C
ATOM	2874	N	PHE	C	510	2.471	36.058	29.085	1.00	24.62	N
ATOM	2875	CA	PHE	C	510	3.498	37.025	28.742	1.00	22.42	C
ATOM	2876	C	PHE	C	510	3.965	36.840	27.304	1.00	22.59	C
ATOM	2877	O	PHE	C	510	3.922	35.730	26.756	1.00	21.95	O
ATOM	2878	CB	PHE	C	510	4.716	36.862	29.659	1.00	20.32	C
ATOM	2879	CG	PHE	C	510	4.406	36.967	31.114	1.00	19.85	C
ATOM	2880	CD1	PHE	C	510	3.987	35.850	31.834	1.00	21.32	C
ATOM	2881	CD2	PHE	C	510	4.546	38.188	31.782	1.00	24.49	C
ATOM	2882	CE1	PHE	C	510	3.714	35.940	33.195	1.00	19.00	C
ATOM	2883	CE2	PHE	C	510	4.273	38.294	33.153	1.00	23.56	C
ATOM	2884	CZ	PHE	C	510	3.857	37.162	33.859	1.00	24.09	C
ATOM	2885	N	THR	C	511	4.408	37.933	26.691	1.00	21.70	N
ATOM	2886	CA	THR	C	511	4.946	37.873	25.338	1.00	20.39	C
ATOM	2887	C	THR	C	511	6.326	37.241	25.515	1.00	18.81	C
ATOM	2888	O	THR	C	511	6.872	37.228	26.620	1.00	18.27	O
ATOM	2889	CB	THR	C	511	5.156	39.274	24.770	1.00	21.47	C
ATOM	2890	OG1	THR	C	511	6.103	39.966	25.597	1.00	25.55	O
ATOM	2891	CG2	THR	C	511	3.841	40.058	24.746	1.00	23.54	C
ATOM	2892	N	PRO	C	512	6.912	36.704	24.440	1.00	20.33	N
ATOM	2893	CA	PRO	C	512	8.240	36.102	24.617	1.00	21.52	C
ATOM	2894	C	PRO	C	512	9.239	37.093	25.237	1.00	22.84	C
ATOM	2895	O	PRO	C	512	10.008	36.750	26.134	1.00	23.45	O
ATOM	2896	CB	PRO	C	512	8.607	35.689	23.198	1.00	20.44	C

ATOM	2897	CG	PRO	C	512	7.223	35.291	22.624	1.00	18.41	C
ATOM	2898	CD	PRO	C	512	6.364	36.422	23.098	1.00	19.58	C
ATOM	2899	N	GLU	C	513	9.199	38.330	24.770	1.00	24.25	N
ATOM	2900	CA	GLU	C	513	10.091	39.378	25.261	1.00	26.40	C
ATOM	2901	C	GLU	C	513	9.920	39.624	26.762	1.00	26.10	C
ATOM	2902	O	GLU	C	513	10.906	39.771	27.500	1.00	25.11	O
ATOM	2903	CB	GLU	C	513	9.822	40.669	24.489	1.00	29.08	C
ATOM	2904	CG	GLU	C	513	10.850	41.753	24.712	1.00	35.84	C
ATOM	2905	CD	GLU	C	513	10.469	43.040	24.011	1.00	41.11	C
ATOM	2906	OE1	GLU	C	513	10.021	42.961	22.841	1.00	40.55	O
ATOM	2907	OE2	GLU	C	513	10.623	44.121	24.626	1.00	43.50	O
ATOM	2908	N	GLU	C	514	8.664	39.682	27.202	1.00	26.40	N
ATOM	2909	CA	GLU	C	514	8.324	39.886	28.606	1.00	25.38	C
ATOM	2910	C	GLU	C	514	8.777	38.681	29.433	1.00	23.79	C
ATOM	2911	O	GLU	C	514	9.386	38.831	30.501	1.00	23.81	O
ATOM	2912	CB	GLU	C	514	6.807	40.069	28.755	1.00	29.33	C
ATOM	2913	CG	GLU	C	514	6.315	41.527	28.727	1.00	33.14	C
ATOM	2914	CD	GLU	C	514	4.861	41.672	28.261	1.00	33.03	C
ATOM	2915	OE1	GLU	C	514	4.007	40.829	28.611	1.00	31.80	O
ATOM	2916	OE2	GLU	C	514	4.568	42.649	27.542	1.00	38.85	O
ATOM	2917	N	PHE	C	515	8.479	37.484	28.941	1.00	21.59	N
ATOM	2918	CA	PHE	C	515	8.859	36.270	29.660	1.00	19.64	C
ATOM	2919	C	PHE	C	515	10.360	36.198	29.901	1.00	17.78	C
ATOM	2920	O	PHE	C	515	10.808	35.987	31.026	1.00	17.87	O
ATOM	2921	CB	PHE	C	515	8.415	35.018	28.890	1.00	18.51	C
ATOM	2922	CG	PHE	C	515	8.822	33.730	29.550	1.00	20.90	C
ATOM	2923	CD1	PHE	C	515	8.068	33.197	30.596	1.00	19.79	C
ATOM	2924	CD2	PHE	C	515	9.972	33.053	29.141	1.00	21.28	C
ATOM	2925	CE1	PHE	C	515	8.445	32.010	31.226	1.00	16.33	C
ATOM	2926	CE2	PHE	C	515	10.361	31.859	29.766	1.00	21.22	C
ATOM	2927	CZ	PHE	C	515	9.597	31.339	30.807	1.00	20.73	C
ATOM	2928	N	PHE	C	516	11.151	36.381	28.852	1.00	18.00	N
ATOM	2929	CA	PHE	C	516	12.593	36.296	29.035	1.00	20.74	C
ATOM	2930	C	PHE	C	516	13.251	37.427	29.813	1.00	22.35	C
ATOM	2931	O	PHE	C	516	14.369	37.273	30.288	1.00	23.89	O
ATOM	2932	CB	PHE	C	516	13.272	36.053	27.692	1.00	19.59	C
ATOM	2933	CG	PHE	C	516	13.052	34.667	27.182	1.00	21.15	C
ATOM	2934	CD1	PHE	C	516	12.038	34.398	26.259	1.00	19.55	C
ATOM	2935	CD2	PHE	C	516	13.795	33.603	27.702	1.00	21.51	C
ATOM	2936	CE1	PHE	C	516	11.766	33.090	25.862	1.00	22.18	C
ATOM	2937	CE2	PHE	C	516	13.533	32.287	27.313	1.00	21.46	C
ATOM	2938	CZ	PHE	C	516	12.516	32.027	26.390	1.00	18.99	C
ATOM	2939	N	ARG	C	517	12.548	38.545	29.972	1.00	25.99	N
ATOM	2940	CA	ARG	C	517	13.058	39.674	30.756	1.00	27.38	C
ATOM	2941	C	ARG	C	517	12.968	39.224	32.218	1.00	27.00	C
ATOM	2942	O	ARG	C	517	13.789	39.594	33.061	1.00	27.39	O
ATOM	2943	CB	ARG	C	517	12.187	40.924	30.547	1.00	25.75	C
ATOM	2944	CG	ARG	C	517	12.627	42.145	31.360	1.00	30.62	C
ATOM	2945	CD	ARG	C	517	11.810	43.412	31.008	1.00	32.07	C
ATOM	2946	NE	ARG	C	517	11.927	43.761	29.592	1.00	37.76	N
ATOM	2947	CZ	ARG	C	517	10.896	43.869	28.754	1.00	40.99	C
ATOM	2948	NH1	ARG	C	517	9.658	43.663	29.188	1.00	41.55	N
ATOM	2949	NH2	ARG	C	517	11.100	44.161	27.473	1.00	41.63	N
ATOM	2950	N	ILE	C	518	11.948	38.424	32.509	1.00	25.97	N
ATOM	2951	CA	ILE	C	518	11.752	37.897	33.850	1.00	22.48	C
ATOM	2952	C	ILE	C	518	12.750	36.756	34.045	1.00	22.93	C
ATOM	2953	O	ILE	C	518	13.337	36.616	35.111	1.00	24.47	O
ATOM	2954	CB	ILE	C	518	10.314	37.394	34.020	1.00	22.76	C
ATOM	2955	CG1	ILE	C	518	9.360	38.592	34.014	1.00	21.65	C
ATOM	2956	CG2	ILE	C	518	10.178	36.567	35.298	1.00	17.95	C
ATOM	2957	CD1	ILE	C	518	7.884	38.197	33.877	1.00	23.44	C
ATOM	2958	N	PHE	C	519	12.938	35.951	33.004	1.00	22.45	N
ATOM	2959	CA	PHE	C	519	13.895	34.848	33.032	1.00	23.48	C

Table 4

ATOM	2960	C	PHE	C	519	15.262	35.437	33.393	1.00	26.08	C
ATOM	2961	O	PHE	C	519	15.886	35.047	34.388	1.00	26.78	O
ATOM	2962	CB	PHE	C	519	13.969	34.194	31.647	1.00	22.04	C
ATOM	2963	CG	PHE	C	519	15.114	33.228	31.479	1.00	23.71	C
ATOM	2964	CD1	PHE	C	519	14.985	31.889	31.864	1.00	23.22	C
ATOM	2965	CD2	PHE	C	519	16.326	33.657	30.938	1.00	21.19	C
ATOM	2966	CE1	PHE	C	519	16.049	30.998	31.713	1.00	21.76	C
ATOM	2967	CE2	PHE	C	519	17.397	32.779	30.783	1.00	21.63	C
ATOM	2968	CZ	PHE	C	519	17.261	31.443	31.171	1.00	23.53	C
ATOM	2969	N	ASN	C	520	15.712	36.388	32.581	1.00	26.37	N
ATOM	2970	CA	ASN	C	520	17.002	37.043	32.784	1.00	28.23	C
ATOM	2971	C	ASN	C	520	17.169	37.639	34.165	1.00	29.17	C
ATOM	2972	O	ASN	C	520	18.227	37.507	34.788	1.00	30.03	O
ATOM	2973	CB	ASN	C	520	17.195	38.183	31.786	1.00	26.87	C
ATOM	2974	CG	ASN	C	520	17.631	37.711	30.442	1.00	26.27	C
ATOM	2975	OD1	ASN	C	520	17.659	38.489	29.495	1.00	32.70	O
ATOM	2976	ND2	ASN	C	520	17.975	36.435	30.335	1.00	26.28	N
ATOM	2977	N	ARG	C	521	16.141	38.338	34.623	1.00	29.19	N
ATOM	2978	CA	ARG	C	521	16.209	38.973	35.926	1.00	32.82	C
ATOM	2979	C	ARG	C	521	16.368	37.912	37.014	1.00	33.74	C
ATOM	2980	O	ARG	C	521	17.122	38.108	37.974	1.00	33.01	O
ATOM	2981	CB	ARG	C	521	14.958	39.820	36.161	1.00	33.12	C
ATOM	2982	CG	ARG	C	521	15.070	40.788	37.325	1.00	39.00	C
ATOM	2983	CD	ARG	C	521	13.914	41.782	37.299	1.00	45.11	C
ATOM	2984	NE	ARG	C	521	13.822	42.459	36.003	1.00	51.59	N
ATOM	2985	CZ	ARG	C	521	14.702	43.352	35.547	1.00	53.90	C
ATOM	2986	NH1	ARG	C	521	15.755	43.697	36.285	1.00	53.08	N
ATOM	2987	NH2	ARG	C	521	14.535	43.892	34.341	1.00	52.06	N
ATOM	2988	N	SER	C	522	15.681	36.781	36.848	1.00	33.44	N
ATOM	2989	CA	SER	C	522	15.759	35.702	37.825	1.00	34.99	C
ATOM	2990	C	SER	C	522	17.150	35.074	37.814	1.00	38.06	C
ATOM	2991	O	SER	C	522	17.710	34.800	38.872	1.00	36.91	O
ATOM	2992	CB	SER	C	522	14.694	34.633	37.539	1.00	33.27	C
ATOM	2993	OG	SER	C	522	13.387	35.186	37.572	1.00	28.25	O
ATOM	2994	N	ILE	C	523	17.706	34.849	36.623	1.00	41.24	N
ATOM	2995	CA	ILE	C	523	19.042	34.265	36.513	1.00	44.88	C
ATOM	2996	C	ILE	C	523	20.053	35.232	37.132	1.00	47.92	C
ATOM	2997	O	ILE	C	523	20.921	34.824	37.905	1.00	46.65	O
ATOM	2998	CB	ILE	C	523	19.420	33.959	35.024	1.00	44.62	C
ATOM	2999	CG1	ILE	C	523	19.259	32.462	34.740	1.00	43.86	C
ATOM	3000	CG2	ILE	C	523	20.874	34.354	34.735	1.00	43.36	C
ATOM	3001	CD1	ILE	C	523	17.872	31.937	34.937	1.00	43.79	C
ATOM	3002	N	ASP	C	524	19.927	36.512	36.797	1.00	51.02	N
ATOM	3003	CA	ASP	C	524	20.815	37.536	37.336	1.00	56.14	C
ATOM	3004	C	ASP	C	524	20.646	37.669	38.847	1.00	58.19	C
ATOM	3005	O	ASP	C	524	21.623	37.653	39.595	1.00	58.67	O
ATOM	3006	CB	ASP	C	524	20.532	38.889	36.675	1.00	57.90	C
ATOM	3007	CG	ASP	C	524	21.483	39.191	35.524	1.00	61.27	C
ATOM	3008	OD1	ASP	C	524	21.759	38.275	34.717	1.00	61.38	O
ATOM	3009	OD2	ASP	C	524	21.945	40.351	35.422	1.00	62.25	O
ATOM	3010	N	ALA	C	525	19.398	37.800	39.287	1.00	61.09	N
ATOM	3011	CA	ALA	C	525	19.091	37.949	40.705	1.00	63.58	C
ATOM	3012	C	ALA	C	525	19.268	36.637	41.449	1.00	65.20	C
ATOM	3013	O	ALA	C	525	18.631	36.402	42.475	1.00	65.19	O
ATOM	3014	CB	ALA	C	525	17.667	38.458	40.880	1.00	64.99	C
ATOM	3015	N	PHE	C	526	20.125	35.777	40.915	1.00	67.33	N
ATOM	3016	CA	PHE	C	526	20.404	34.492	41.535	1.00	69.35	C
ATOM	3017	C	PHE	C	526	21.797	34.596	42.141	1.00	70.48	C
ATOM	3018	O	PHE	C	526	22.145	33.875	43.076	1.00	71.00	O
ATOM	3019	CB	PHE	C	526	20.348	33.377	40.490	1.00	69.78	C
ATOM	3020	CG	PHE	C	526	20.536	32.011	41.062	1.00	70.50	C
ATOM	3021	CD1	PHE	C	526	21.810	31.529	41.341	1.00	70.53	C
ATOM	3022	CD2	PHE	C	526	19.436	31.218	41.367	1.00	71.41	C

ATOM	3023	CE1	PHE	C	526	21.987	30.276	41.920	1.00	70.93	C
ATOM	3024	CE2	PHE	C	526	19.602	29.962	41.946	1.00	71.39	C
ATOM	3025	CZ	PHE	C	526	20.881	29.491	42.223	1.00	71.33	C
ATOM	3026	N	LYS	C	527	22.577	35.527	41.603	1.00	71.19	N
ATOM	3027	CA	LYS	C	527	23.938	35.784	42.056	1.00	71.55	C
ATOM	3028	C	LYS	C	527	24.080	37.277	42.371	1.00	70.63	C
ATOM	3029	O	LYS	C	527	23.788	37.731	43.481	1.00	70.51	O
ATOM	3030	CB	LYS	C	527	24.923	35.378	40.955	1.00	72.89	C
ATOM	3031	CG	LYS	C	527	24.520	35.863	39.557	1.00	74.66	C
ATOM	3032	CD	LYS	C	527	25.500	35.400	38.482	1.00	75.46	C
ATOM	3033	CE	LYS	C	527	25.039	35.801	37.080	1.00	75.93	C
ATOM	3034	NZ	LYS	C	527	24.995	37.279	36.867	1.00	75.87	N
ATOM	3035	N	ASP	C	528	24.539	38.015	41.366	1.00	69.13	N
ATOM	3036	CA	ASP	C	528	24.734	39.461	41.396	1.00	68.02	C
ATOM	3037	C	ASP	C	528	24.981	40.243	42.687	1.00	66.87	C
ATOM	3038	O	ASP	C	528	26.018	40.086	43.333	1.00	66.97	O
ATOM	3039	CB	ASP	C	528	23.588	40.129	40.631	1.00	68.86	C
ATOM	3040	CG	ASP	C	528	23.707	39.940	39.135	1.00	70.61	C
ATOM	3041	OD1	ASP	C	528	23.897	38.787	38.697	1.00	73.33	O
ATOM	3042	OD2	ASP	C	528	23.611	40.941	38.394	1.00	72.34	O
ATOM	3043	N	PHE	C	529	24.018	41.092	43.044	1.00	65.50	N
ATOM	3044	CA	PHE	C	529	24.132	41.995	44.197	1.00	62.92	C
ATOM	3045	C	PHE	C	529	22.753	42.435	44.704	1.00	62.89	C
ATOM	3046	O	PHE	C	529	22.271	41.972	45.744	1.00	60.70	O
ATOM	3047	CB	PHE	C	529	24.910	43.223	43.722	1.00	59.24	C
ATOM	3048	CG	PHE	C	529	24.861	43.402	42.223	1.00	54.32	C
ATOM	3049	CD1	PHE	C	529	23.632	43.532	41.561	1.00	53.79	C
ATOM	3050	CD2	PHE	C	529	26.026	43.334	41.457	1.00	52.93	C
ATOM	3051	CE1	PHE	C	529	23.562	43.584	40.155	1.00	51.16	C
ATOM	3052	CE2	PHE	C	529	25.973	43.385	40.048	1.00	51.37	C
ATOM	3053	CZ	PHE	C	529	24.738	43.508	39.397	1.00	50.72	C
ATOM	3054	N	VAL	C	530	22.164	43.362	43.944	1.00	62.87	N
ATOM	3055	CA	VAL	C	530	20.843	43.962	44.159	1.00	62.88	C
ATOM	3056	C	VAL	C	530	20.321	44.182	45.584	1.00	62.22	C
ATOM	3057	O	VAL	C	530	20.044	43.233	46.322	1.00	62.00	O
ATOM	3058	CB	VAL	C	530	19.749	43.182	43.368	1.00	62.92	C
ATOM	3059	CG1	VAL	C	530	18.449	43.993	43.332	1.00	62.70	C
ATOM	3060	CG2	VAL	C	530	20.233	42.889	41.953	1.00	63.00	C
ATOM	3061	N	VAL	C	531	20.175	45.458	45.937	1.00	61.98	N
ATOM	3062	CA	VAL	C	531	19.655	45.895	47.235	1.00	62.79	C
ATOM	3063	C	VAL	C	531	20.097	45.061	48.452	1.00	63.46	C
ATOM	3064	O	VAL	C	531	21.066	44.295	48.387	1.00	62.89	O
ATOM	3065	CB	VAL	C	531	18.090	45.964	47.182	1.00	62.86	C
ATOM	3066	CG1	VAL	C	531	17.532	46.734	48.382	1.00	61.05	C
ATOM	3067	CG2	VAL	C	531	17.648	46.632	45.878	1.00	60.79	C
ATOM	3068	N	ALA	C	532	19.377	45.239	49.561	1.00	64.26	N
ATOM	3069	CA	ALA	C	532	19.643	44.550	50.822	1.00	64.32	C
ATOM	3070	C	ALA	C	532	19.598	43.036	50.673	1.00	64.57	C
ATOM	3071	O	ALA	C	532	18.581	42.404	50.966	1.00	64.60	O
ATOM	3072	CB	ALA	C	532	18.634	44.998	51.876	1.00	63.34	C
ATOM	3073	N	SER	C	533	20.714	42.464	50.227	1.00	65.18	N
ATOM	3074	CA	SER	C	533	20.824	41.024	50.029	1.00	65.29	C
ATOM	3075	C	SER	C	533	20.772	40.247	51.344	1.00	65.38	C
ATOM	3076	O	SER	C	533	21.684	40.342	52.171	1.00	65.59	O
ATOM	3077	CB	SER	C	533	22.129	40.690	49.296	1.00	64.84	C
ATOM	3078	OG	SER	C	533	23.259	41.063	50.069	1.00	65.94	O
ATOM	3079	N	GLU	C	534	19.696	39.484	51.527	1.00	65.95	N
ATOM	3080	CA	GLU	C	534	19.506	38.661	52.718	1.00	65.76	C
ATOM	3081	C	GLU	C	534	19.243	39.481	53.975	1.00	66.75	C
ATOM	3082	O	GLU	C	534	19.342	38.965	55.089	1.00	67.37	O
ATOM	3083	CB	GLU	C	534	20.734	37.782	52.930	1.00	65.02	C
ATOM	3084	CG	GLU	C	534	21.167	37.039	51.676	1.00	64.99	C
ATOM	3085	CD	GLU	C	534	22.532	36.403	51.828	1.00	64.29	C

ATOM	3086	OE1	GLU	C	534	22.681	35.521	52.700	1.00	65.53	O
ATOM	3087	OE2	GLU	C	534	23.454	36.791	51.080	1.00	64.02	O
ATOM	3088	N	THR	C	535	18.908	40.757	53.803	1.00	67.44	N
ATOM	3089	CA	THR	C	535	18.637	41.614	54.950	1.00	68.00	C
ATOM	3090	C	THR	C	535	17.165	41.545	55.332	1.00	68.22	C
ATOM	3091	O	THR	C	535	16.756	40.678	56.104	1.00	68.54	O
ATOM	3092	CB	THR	C	535	19.008	43.088	54.666	1.00	67.35	C
ATOM	3093	OG1	THR	C	535	20.403	43.179	54.347	1.00	67.95	O
ATOM	3094	CG2	THR	C	535	18.725	43.952	55.891	1.00	67.69	C
ATOM	3095	N	SER	C	536	16.372	42.458	54.786	1.00	69.72	N
ATOM	3096	CA	SER	C	536	14.946	42.495	55.083	1.00	71.58	C
ATOM	3097	C	SER	C	536	14.277	41.143	54.839	1.00	72.98	C
ATOM	3098	O	SER	C	536	14.316	40.601	53.731	1.00	72.00	O
ATOM	3099	CB	SER	C	536	14.255	43.588	54.254	1.00	70.94	C
ATOM	3100	OG	SER	C	536	14.513	43.434	52.870	1.00	71.43	O
ATOM	3101	N	ASP	C	537	13.673	40.605	55.896	1.00	75.05	N
ATOM	3102	CA	ASP	C	537	12.979	39.324	55.839	1.00	76.57	C
ATOM	3103	C	ASP	C	537	11.798	39.383	54.873	1.00	76.67	C
ATOM	3104	O	ASP	C	537	11.556	40.407	54.228	1.00	76.41	O
ATOM	3105	CB	ASP	C	537	12.486	38.949	57.236	1.00	78.26	C
ATOM	3106	CG	ASP	C	537	11.586	40.013	57.839	1.00	79.16	C
ATOM	3107	OD1	ASP	C	537	10.455	40.193	57.339	1.00	81.11	O
ATOM	3108	OD2	ASP	C	537	12.014	40.676	58.809	1.00	79.18	O
ATOM	3109	N	CYS	C	538	11.055	38.286	54.784	1.00	76.63	N
ATOM	3110	CA	CYS	C	538	9.914	38.230	53.880	1.00	76.72	C
ATOM	3111	C	CYS	C	538	8.594	38.162	54.640	1.00	78.73	C
ATOM	3112	O	CYS	C	538	8.361	37.248	55.432	1.00	79.12	O
ATOM	3113	CB	CYS	C	538	10.057	37.025	52.948	1.00	72.63	C
ATOM	3114	SG	CYS	C	538	11.753	36.812	52.310	1.00	67.17	S
ATOM	3115	N	VAL	C	539	7.734	39.144	54.388	1.00	80.68	N
ATOM	3116	CA	VAL	C	539	6.433	39.228	55.040	1.00	82.30	C
ATOM	3117	C	VAL	C	539	5.325	38.748	54.109	1.00	82.61	C
ATOM	3118	O	VAL	C	539	4.232	38.402	54.557	1.00	83.44	O
ATOM	3119	CB	VAL	C	539	6.130	40.680	55.469	1.00	82.60	C
ATOM	3120	CG1	VAL	C	539	4.789	40.748	56.187	1.00	83.10	C
ATOM	3121	CG2	VAL	C	539	7.249	41.197	56.358	1.00	83.03	C
TER	3122		VAL	C	539						
ATOM	3123	N	THR	D	609	9.249	28.401	-7.677	1.00	104.80	N
ATOM	3124	CA	THR	D	609	9.697	27.034	-7.441	1.00	104.82	C
ATOM	3125	C	THR	D	609	10.982	27.017	-6.632	1.00	104.32	C
ATOM	3126	O	THR	D	609	12.058	27.291	-7.165	1.00	104.68	O
ATOM	3127	CB	THR	D	609	9.955	26.295	-8.763	1.00	105.25	C
ATOM	3128	OG1	THR	D	609	8.723	26.158	-9.480	1.00	106.41	O
ATOM	3129	CG2	THR	D	609	10.544	24.916	-8.499	1.00	105.53	C
ATOM	3130	N	ASN	D	610	10.871	26.689	-5.348	1.00	103.19	N
ATOM	3131	CA	ASN	D	610	12.049	26.644	-4.494	1.00	101.47	C
ATOM	3132	C	ASN	D	610	11.835	25.834	-3.214	1.00	99.54	C
ATOM	3133	O	ASN	D	610	11.326	24.712	-3.253	1.00	99.25	O
ATOM	3134	CB	ASN	D	610	12.490	28.070	-4.146	1.00	102.29	C
ATOM	3135	CG	ASN	D	610	13.967	28.158	-3.805	1.00	103.02	C
ATOM	3136	OD1	ASN	D	610	14.436	27.541	-2.848	1.00	103.61	O
ATOM	3137	ND2	ASN	D	610	14.710	28.931	-4.592	1.00	103.09	N
ATOM	3138	N	ASN	D	611	12.225	26.423	-2.087	1.00	97.01	N
ATOM	3139	CA	ASN	D	611	12.128	25.792	-0.774	1.00	93.50	C
ATOM	3140	C	ASN	D	611	10.939	24.875	-0.529	1.00	90.18	C
ATOM	3141	O	ASN	D	611	9.862	25.040	-1.103	1.00	90.09	O
ATOM	3142	CB	ASN	D	611	12.170	26.857	0.324	1.00	94.97	C
ATOM	3143	CG	ASN	D	611	13.502	27.574	0.385	1.00	95.78	C
ATOM	3144	OD1	ASN	D	611	14.553	26.944	0.507	1.00	95.59	O
ATOM	3145	ND2	ASN	D	611	13.466	28.901	0.304	1.00	96.69	N
ATOM	3146	N	VAL	D	612	11.174	23.907	0.350	1.00	85.29	N
ATOM	3147	CA	VAL	D	612	10.198	22.909	0.760	1.00	80.19	C
ATOM	3148	C	VAL	D	612	10.842	22.227	1.960	1.00	75.88	C

ATOM	3149	O	VAL	D	612	10.165	21.708	2.844	1.00	74.52	O
ATOM	3150	CB	VAL	D	612	9.935	21.873	-0.358	1.00	81.35	C
ATOM	3151	CG1	VAL	D	612	11.238	21.205	-0.772	1.00	82.50	C
ATOM	3152	CG2	VAL	D	612	8.925	20.839	0.118	1.00	80.43	C
ATOM	3153	N	LYS	D	613	12.170	22.243	1.975	1.00	71.51	N
ATOM	3154	CA	LYS	D	613	12.933	21.670	3.072	1.00	67.34	C
ATOM	3155	C	LYS	D	613	12.999	22.749	4.149	1.00	62.33	C
ATOM	3156	O	LYS	D	613	13.083	22.450	5.339	1.00	61.50	O
ATOM	3157	CB	LYS	D	613	14.343	21.297	2.613	1.00	69.74	C
ATOM	3158	CG	LYS	D	613	15.170	22.469	2.107	1.00	72.74	C
ATOM	3159	CD	LYS	D	613	16.618	22.067	1.847	1.00	74.87	C
ATOM	3160	CE	LYS	D	613	17.369	21.759	3.144	1.00	76.97	C
ATOM	3161	NZ	LYS	D	613	16.829	20.579	3.884	1.00	77.27	N
ATOM	3162	N	ASP	D	614	12.973	24.006	3.715	1.00	56.07	N
ATOM	3163	CA	ASP	D	614	12.984	25.137	4.639	1.00	49.70	C
ATOM	3164	C	ASP	D	614	11.604	25.175	5.282	1.00	44.24	C
ATOM	3165	O	ASP	D	614	11.444	25.616	6.419	1.00	40.58	O
ATOM	3166	CB	ASP	D	614	13.248	26.446	3.886	1.00	51.87	C
ATOM	3167	CG	ASP	D	614	14.726	26.831	3.870	1.00	53.98	C
ATOM	3168	OD1	ASP	D	614	15.580	25.965	4.162	1.00	56.47	O
ATOM	3169	OD2	ASP	D	614	15.034	28.003	3.557	1.00	56.08	O
ATOM	3170	N	VAL	D	615	10.609	24.697	4.537	1.00	38.54	N
ATOM	3171	CA	VAL	D	615	9.247	24.656	5.036	1.00	35.71	C
ATOM	3172	C	VAL	D	615	9.154	23.643	6.175	1.00	33.47	C
ATOM	3173	O	VAL	D	615	8.494	23.903	7.177	1.00	31.02	O
ATOM	3174	CB	VAL	D	615	8.237	24.282	3.928	1.00	34.45	C
ATOM	3175	CG1	VAL	D	615	6.851	24.119	4.523	1.00	31.21	C
ATOM	3176	CG2	VAL	D	615	8.221	25.363	2.848	1.00	32.22	C
ATOM	3177	N	THR	D	616	9.823	22.501	6.037	1.00	31.98	N
ATOM	3178	CA	THR	D	616	9.786	21.503	7.102	1.00	32.69	C
ATOM	3179	C	THR	D	616	10.533	22.047	8.318	1.00	30.76	C
ATOM	3180	O	THR	D	616	10.155	21.793	9.460	1.00	30.94	O
ATOM	3181	CB	THR	D	616	10.428	20.162	6.672	1.00	35.33	C
ATOM	3182	OG1	THR	D	616	11.846	20.328	6.547	1.00	41.34	O
ATOM	3183	CG2	THR	D	616	9.852	19.699	5.334	1.00	35.34	C
ATOM	3184	N	LYS	D	617	11.589	22.816	8.076	1.00	29.35	N
ATOM	3185	CA	LYS	D	617	12.344	23.393	9.180	1.00	29.05	C
ATOM	3186	C	LYS	D	617	11.499	24.469	9.849	1.00	26.16	C
ATOM	3187	O	LYS	D	617	11.512	24.613	11.068	1.00	25.52	O
ATOM	3188	CB	LYS	D	617	13.660	24.007	8.684	1.00	31.88	C
ATOM	3189	CG	LYS	D	617	14.657	22.995	8.131	1.00	36.84	C
ATOM	3190	CD	LYS	D	617	15.973	23.669	7.729	1.00	40.64	C
ATOM	3191	CE	LYS	D	617	16.962	22.657	7.167	1.00	42.08	C
ATOM	3192	NZ	LYS	D	617	18.285	23.281	6.866	1.00	47.70	N
ATOM	3193	N	LEU	D	618	10.761	25.219	9.042	1.00	23.72	N
ATOM	3194	CA	LEU	D	618	9.913	26.274	9.562	1.00	23.58	C
ATOM	3195	C	LEU	D	618	8.825	25.676	10.458	1.00	22.78	C
ATOM	3196	O	LEU	D	618	8.595	26.150	11.565	1.00	22.16	O
ATOM	3197	CB	LEU	D	618	9.277	27.050	8.404	1.00	25.27	C
ATOM	3198	CG	LEU	D	618	8.511	28.330	8.742	1.00	22.16	C
ATOM	3199	CD1	LEU	D	618	9.457	29.310	9.442	1.00	25.36	C
ATOM	3200	CD2	LEU	D	618	7.941	28.948	7.474	1.00	21.74	C
ATOM	3201	N	VAL	D	619	8.153	24.634	9.981	1.00	21.60	N
ATOM	3202	CA	VAL	D	619	7.111	24.014	10.780	1.00	21.20	C
ATOM	3203	C	VAL	D	619	7.722	23.610	12.114	1.00	19.91	C
ATOM	3204	O	VAL	D	619	7.151	23.880	13.177	1.00	21.08	O
ATOM	3205	CB	VAL	D	619	6.510	22.772	10.072	1.00	22.52	C
ATOM	3206	CG1	VAL	D	619	5.569	22.012	11.020	1.00	20.69	C
ATOM	3207	CG2	VAL	D	619	5.761	23.208	8.828	1.00	22.01	C
ATOM	3208	N	ALA	D	620	8.898	22.995	12.058	1.00	19.29	N
ATOM	3209	CA	ALA	D	620	9.593	22.559	13.271	1.00	22.19	C
ATOM	3210	C	ALA	D	620	9.941	23.708	14.212	1.00	21.87	C
ATOM	3211	O	ALA	D	620	9.997	23.527	15.431	1.00	22.55	O

Table 4

ATOM	3212	CB	ALA	D	620	10.882	21.791	12.900	1.00	22.64	C
ATOM	3213	N	ASN	D	621	10.180	24.886	13.642	1.00	20.77	N
ATOM	3214	CA	ASN	D	621	10.545	26.044	14.429	1.00	21.13	C
ATOM	3215	C	ASN	D	621	9.398	26.989	14.776	1.00	22.18	C
ATOM	3216	O	ASN	D	621	9.635	28.126	15.172	1.00	25.05	O
ATOM	3217	CB	ASN	D	621	11.658	26.814	13.721	1.00	21.85	C
ATOM	3218	CG	ASN	D	621	12.794	27.178	14.664	1.00	23.02	C
ATOM	3219	OD1	ASN	D	621	13.183	26.377	15.522	1.00	22.74	O
ATOM	3220	ND2	ASN	D	621	13.341	28.381	14.506	1.00	24.14	N
ATOM	3221	N	LEU	D	622	8.161	26.524	14.626	1.00	20.56	N
ATOM	3222	CA	LEU	D	622	6.988	27.328	14.965	1.00	20.70	C
ATOM	3223	C	LEU	D	622	6.262	26.587	16.081	1.00	19.87	C
ATOM	3224	O	LEU	D	622	6.276	25.357	16.109	1.00	20.57	O
ATOM	3225	CB	LEU	D	622	6.076	27.504	13.739	1.00	19.75	C
ATOM	3226	CG	LEU	D	622	6.608	28.485	12.679	1.00	20.96	C
ATOM	3227	CD1	LEU	D	622	5.782	28.448	11.379	1.00	18.20	C
ATOM	3228	CD2	LEU	D	622	6.600	29.879	13.291	1.00	21.02	C
ATOM	3229	N	PRO	D	623	5.645	27.317	17.038	1.00	17.52	N
ATOM	3230	CA	PRO	D	623	4.947	26.611	18.119	1.00	20.47	C
ATOM	3231	C	PRO	D	623	3.795	25.789	17.543	1.00	22.37	C
ATOM	3232	O	PRO	D	623	3.043	26.292	16.697	1.00	19.83	O
ATOM	3233	CB	PRO	D	623	4.435	27.740	19.016	1.00	18.11	C
ATOM	3234	CG	PRO	D	623	5.272	28.928	18.638	1.00	17.91	C
ATOM	3235	CD	PRO	D	623	5.440	28.770	17.153	1.00	16.64	C
ATOM	3236	N	LYS	D	624	3.668	24.538	17.994	1.00	21.53	N
ATOM	3237	CA	LYS	D	624	2.596	23.661	17.521	1.00	26.57	C
ATOM	3238	C	LYS	D	624	1.207	24.258	17.776	1.00	27.64	C
ATOM	3239	O	LYS	D	624	0.252	23.910	17.093	1.00	30.00	O
ATOM	3240	CB	LYS	D	624	2.665	22.282	18.204	1.00	25.86	C
ATOM	3241	CG	LYS	D	624	3.908	21.478	17.876	1.00	31.06	C
ATOM	3242	CD	LYS	D	624	3.932	20.129	18.594	1.00	31.72	C
ATOM	3243	CE	LYS	D	624	5.322	19.472	18.497	1.00	33.07	C
ATOM	3244	NZ	LYS	D	624	5.356	18.078	19.056	1.00	31.48	N
ATOM	3245	N	ASP	D	625	1.085	25.149	18.756	1.00	28.70	N
ATOM	3246	CA	ASP	D	625	-0.221	25.724	19.052	1.00	30.74	C
ATOM	3247	C	ASP	D	625	-0.429	27.166	18.560	1.00	30.14	C
ATOM	3248	O	ASP	D	625	-1.396	27.828	18.933	1.00	29.70	O
ATOM	3249	CB	ASP	D	625	-0.527	25.596	20.562	1.00	30.51	C
ATOM	3250	CG	ASP	D	625	0.474	26.333	21.439	1.00	34.32	C
ATOM	3251	OD1	ASP	D	625	1.687	26.271	21.158	1.00	33.59	O
ATOM	3252	OD2	ASP	D	625	0.046	26.964	22.432	1.00	40.39	O
ATOM	3253	N	TYR	D	626	0.465	27.648	17.705	1.00	29.06	N
ATOM	3254	CA	TYR	D	626	0.308	28.988	17.171	1.00	27.36	C
ATOM	3255	C	TYR	D	626	-0.647	28.868	15.976	1.00	28.81	C
ATOM	3256	O	TYR	D	626	-0.432	28.055	15.078	1.00	29.03	O
ATOM	3257	CB	TYR	D	626	1.657	29.530	16.724	1.00	27.84	C
ATOM	3258	CG	TYR	D	626	1.641	30.989	16.344	1.00	24.37	C
ATOM	3259	CD1	TYR	D	626	1.307	31.969	17.270	1.00	24.30	C
ATOM	3260	CD2	TYR	D	626	1.999	31.389	15.062	1.00	25.35	C
ATOM	3261	CE1	TYR	D	626	1.338	33.326	16.922	1.00	22.03	C
ATOM	3262	CE2	TYR	D	626	2.029	32.719	14.706	1.00	21.86	C
ATOM	3263	CZ	TYR	D	626	1.705	33.684	15.635	1.00	22.40	C
ATOM	3264	OH	TYR	D	626	1.793	35.010	15.270	1.00	26.81	O
ATOM	3265	N	MET	D	627	-1.712	29.660	15.979	1.00	27.81	N
ATOM	3266	CA	MET	D	627	-2.692	29.614	14.902	1.00	27.77	C
ATOM	3267	C	MET	D	627	-2.414	30.687	13.879	1.00	26.69	C
ATOM	3268	O	MET	D	627	-2.155	31.847	14.229	1.00	27.26	O
ATOM	3269	CB	MET	D	627	-4.111	29.795	15.449	1.00	29.13	C
ATOM	3270	CG	MET	D	627	-4.483	28.783	16.530	1.00	33.45	C
ATOM	3271	SD	MET	D	627	-4.081	27.094	16.044	1.00	39.63	S
ATOM	3272	CE	MET	D	627	-5.527	26.652	15.050	1.00	38.53	C
ATOM	3273	N	ILE	D	628	-2.451	30.292	12.612	1.00	24.67	N
ATOM	3274	CA	ILE	D	628	-2.219	31.221	11.522	1.00	25.62	C

ATOM	3275	C	ILE	D	628	-3.526	31.385	10.757	1.00	26.27	
ATOM	3276	O	ILE	D	628	-4.167	30.395	10.386	1.00	22.16	C
ATOM	3277	CB	ILE	D	628	-1.144	30.692	10.547	1.00	25.29	O
ATOM	3278	CG1	ILE	D	628	0.138	30.346	11.315	1.00	26.17	C
ATOM	3279	CG2	ILE	D	628	-0.851	31.753	9.485	1.00	25.31	C
ATOM	3280	CD1	ILE	D	628	1.186	29.612	10.487	1.00	22.59	C
ATOM	3281	N	THR	D	629	-3.912	32.633	10.515	1.00	28.09	N
ATOM	3282	CA	THR	D	629	-5.144	32.912	9.779	1.00	31.02	C
ATOM	3283	C	THR	D	629	-4.949	32.944	8.271	1.00	30.20	C
ATOM	3284	O	THR	D	629	-3.988	33.518	7.755	1.00	27.82	O
ATOM	3285	CB	THR	D	629	-5.756	34.250	10.162	1.00	32.14	O
ATOM	3286	OG1	THR	D	629	-5.718	34.408	11.582	1.00	37.56	O
ATOM	3287	CG2	THR	D	629	-7.202	34.295	9.697	1.00	36.14	O
ATOM	3288	N	LEU	D	630	-5.898	32.341	7.574	1.00	30.44	C
ATOM	3289	CA	LEU	D	630	-5.866	32.271	6.131	1.00	32.20	N
ATOM	3290	C	LEU	D	630	-7.297	32.212	5.629	1.00	34.56	C
ATOM	3291	O	LEU	D	630	-8.097	31.390	6.092	1.00	33.39	O
ATOM	3292	CB	LEU	D	630	-5.113	31.002	5.670	1.00	28.93	O
ATOM	3293	CG	LEU	D	630	-5.202	30.639	4.177	1.00	27.21	C
ATOM	3294	CD1	LEU	D	630	-4.440	31.676	3.365	1.00	22.63	C
ATOM	3295	CD2	LEU	D	630	-4.641	29.232	3.916	1.00	25.04	C
ATOM	3296	N	LYS	D	631	-7.629	33.088	4.692	1.00	37.84	C
ATOM	3297	CA	LYS	D	631	-8.963	33.058	4.118	1.00	42.10	N
ATOM	3298	C	LYS	D	631	-8.918	31.896	3.135	1.00	44.08	C
ATOM	3299	O	LYS	D	631	-8.337	31.993	2.054	1.00	41.39	O
ATOM	3300	CB	LYS	D	631	-9.276	34.379	3.418	1.00	42.62	O
ATOM	3301	CG	LYS	D	631	-9.395	35.528	4.403	1.00	44.88	C
ATOM	3302	CD	LYS	D	631	-9.531	36.864	3.707	1.00	47.80	C
ATOM	3303	CE	LYS	D	631	-9.388	37.990	4.711	1.00	49.65	C
ATOM	3304	NZ	LYS	D	631	-9.271	39.314	4.048	1.00	54.29	C
ATOM	3305	N	TYR	D	632	-9.500	30.782	3.558	1.00	48.07	N
ATOM	3306	CA	TYR	D	632	-9.534	29.566	2.771	1.00	53.34	N
ATOM	3307	C	TYR	D	632	-10.583	29.681	1.665	1.00	55.29	C
ATOM	3308	O	TYR	D	632	-11.699	30.154	1.899	1.00	55.86	O
ATOM	3309	CB	TYR	D	632	-9.865	28.389	3.691	1.00	57.34	O
ATOM	3310	CG	TYR	D	632	-9.485	27.026	3.154	1.00	61.63	C
ATOM	3311	CD1	TYR	D	632	-8.150	26.674	2.976	1.00	62.09	C
ATOM	3312	CD2	TYR	D	632	-10.462	26.077	2.850	1.00	64.00	C
ATOM	3313	CE1	TYR	D	632	-7.795	25.414	2.513	1.00	64.69	C
ATOM	3314	CE2	TYR	D	632	-10.117	24.810	2.383	1.00	65.21	C
ATOM	3315	CZ	TYR	D	632	-8.781	24.485	2.218	1.00	65.98	C
ATOM	3316	OH	TYR	D	632	-8.430	23.239	1.748	1.00	66.91	O
ATOM	3317	N	VAL	D	633	-10.217	29.260	0.458	1.00	56.89	N
ATOM	3318	CA	VAL	D	633	-11.136	29.296	-0.675	1.00	58.30	C
ATOM	3319	C	VAL	D	633	-12.053	28.073	-0.623	1.00	59.02	C
ATOM	3320	O	VAL	D	633	-11.609	26.969	-0.320	1.00	58.72	O
ATOM	3321	CB	VAL	D	633	-10.363	29.322	-2.019	1.00	58.62	O
ATOM	3322	CG1	VAL	D	633	-11.200	28.713	-3.130	1.00	59.35	C
ATOM	3323	CG2	VAL	D	633	-10.009	30.757	-2.378	1.00	57.39	C
ATOM	3324	N	PRO	D	634	-13.350	28.264	-0.920	1.00	61.02	N
ATOM	3325	CA	PRO	D	634	-14.383	27.223	-0.923	1.00	62.30	C
ATOM	3326	C	PRO	D	634	-13.921	25.775	-1.086	1.00	62.35	C
ATOM	3327	O	PRO	D	634	-13.371	25.184	-0.155	1.00	62.18	O
ATOM	3328	CB	PRO	D	634	-15.302	27.677	-2.048	1.00	62.26	O
ATOM	3329	CG	PRO	D	634	-15.345	29.157	-1.802	1.00	63.32	C
ATOM	3330	CD	PRO	D	634	-13.881	29.509	-1.511	1.00	62.09	C
ATOM	3331	N	GLY	D	635	-14.154	25.202	-2.262	1.00	62.41	N
ATOM	3332	CA	GLY	D	635	-13.767	23.818	-2.482	1.00	64.17	C
ATOM	3333	C	GLY	D	635	-12.385	23.654	-3.073	1.00	64.49	C
ATOM	3334	O	GLY	D	635	-12.181	22.822	-3.962	1.00	64.76	O
ATOM	3335	N	MET	D	636	-11.433	24.434	-2.566	1.00	64.65	N
ATOM	3336	CA	MET	D	636	-10.062	24.402	-3.065	1.00	64.78	C
ATOM	3337	C	MET	D	636	-9.326	23.086	-2.823	1.00	64.92	C

Table 4

ATOM	3338	O	MET	D	636	-8.104	23.031	-2.953	1.00	65.98	O
ATOM	3339	CB	MET	D	636	-9.242	25.537	-2.446	1.00	65.11	C
ATOM	3340	CG	MET	D	636	-8.795	25.268	-1.013	1.00	65.13	C
ATOM	3341	SD	MET	D	636	-7.160	25.975	-0.639	1.00	67.60	S
ATOM	3342	CE	MET	D	636	-6.056	24.678	-1.286	1.00	63.14	C
ATOM	3343	N	ASP	D	637	-10.046	22.029	-2.469	1.00	64.44	N
ATOM	3344	CA	ASP	D	637	-9.382	20.754	-2.230	1.00	64.50	C
ATOM	3345	C	ASP	D	637	-9.855	19.712	-3.229	1.00	63.89	C
ATOM	3346	O	ASP	D	637	-9.095	18.826	-3.620	1.00	63.15	O
ATOM	3347	CB	ASP	D	637	-9.662	20.263	-0.808	1.00	65.45	C
ATOM	3348	CG	ASP	D	637	-10.970	19.508	-0.702	1.00	66.50	C
ATOM	3349	OD1	ASP	D	637	-11.989	20.007	-1.229	1.00	67.34	O
ATOM	3350	OD2	ASP	D	637	-10.979	18.418	-0.087	1.00	67.32	O
ATOM	3351	N	VAL	D	638	-11.113	19.827	-3.643	1.00	64.62	N
ATOM	3352	CA	VAL	D	638	-11.693	18.880	-4.588	1.00	65.92	C
ATOM	3353	C	VAL	D	638	-11.757	19.406	-6.020	1.00	69.41	C
ATOM	3354	O	VAL	D	638	-11.298	18.737	-6.948	1.00	69.69	O
ATOM	3355	CB	VAL	D	638	-13.114	18.455	-4.147	1.00	62.82	C
ATOM	3356	CG1	VAL	D	638	-13.034	17.657	-2.857	1.00	61.12	C
ATOM	3357	CG2	VAL	D	638	-13.997	19.681	-3.957	1.00	60.81	C
ATOM	3358	N	LEU	D	639	-12.327	20.595	-6.201	1.00	73.26	N
ATOM	3359	CA	LEU	D	639	-12.439	21.184	-7.530	1.00	78.29	C
ATOM	3360	C	LEU	D	639	-11.082	21.251	-8.225	1.00	86.56	C
ATOM	3361	O	LEU	D	639	-10.036	21.192	-7.575	1.00	86.40	O
ATOM	3362	CB	LEU	D	639	-13.046	22.588	-7.446	1.00	73.68	C
ATOM	3363	CG	LEU	D	639	-14.565	22.684	-7.275	1.00	69.04	C
ATOM	3364	CD1	LEU	D	639	-14.983	22.060	-5.955	1.00	66.96	C
ATOM	3365	CD2	LEU	D	639	-14.986	24.148	-7.336	1.00	66.40	C
ATOM	3366	N	PRO	D	640	-11.083	21.379	-9.562	1.00	90.46	N
ATOM	3367	CA	PRO	D	640	-9.840	21.451	-10.334	1.00	96.88	C
ATOM	3368	C	PRO	D	640	-8.972	22.651	-9.965	1.00	101.73	C
ATOM	3369	O	PRO	D	640	-9.476	23.684	-9.522	1.00	102.12	O
ATOM	3370	CB	PRO	D	640	-10.339	21.518	-11.774	1.00	97.23	C
ATOM	3371	CG	PRO	D	640	-11.635	22.257	-11.637	1.00	96.90	C
ATOM	3372	CD	PRO	D	640	-12.251	21.575	-10.440	1.00	92.55	C
ATOM	3373	N	SER	D	641	-7.665	22.499	-10.156	1.00	105.53	N
ATOM	3374	CA	SER	D	641	-6.705	23.553	-9.854	1.00	109.37	C
ATOM	3375	C	SER	D	641	-6.828	24.693	-10.861	1.00	110.52	C
ATOM	3376	O	SER	D	641	-5.826	25.215	-11.353	1.00	111.81	O
ATOM	3377	CB	SER	D	641	-5.281	22.990	-9.888	1.00	111.58	C
ATOM	3378	OG	SER	D	641	-4.914	22.597	-11.198	1.00	114.18	O
ATOM	3379	N	HIS	D	642	-8.066	25.066	-11.166	1.00	110.97	N
ATOM	3380	CA	HIS	D	642	-8.343	26.142	-12.107	1.00	110.40	C
ATOM	3381	C	HIS	D	642	-9.260	27.140	-11.423	1.00	108.41	C
ATOM	3382	O	HIS	D	642	-9.047	28.350	-11.491	1.00	108.42	O
ATOM	3383	CB	HIS	D	642	-9.027	25.587	-13.357	1.00	112.21	C
ATOM	3384	CG	HIS	D	642	-8.258	24.495	-14.030	1.00	113.95	C
ATOM	3385	ND1	HIS	D	642	-6.974	24.669	-14.499	1.00	114.98	N
ATOM	3386	CD2	HIS	D	642	-8.591	23.213	-14.313	1.00	114.86	C
ATOM	3387	CE1	HIS	D	642	-6.548	23.542	-15.042	1.00	115.59	C
ATOM	3388	NE2	HIS	D	642	-7.511	22.643	-14.942	1.00	115.50	N
ATOM	3389	N	CYS	D	643	-10.285	26.616	-10.763	1.00	105.86	N
ATOM	3390	CA	CYS	D	643	-11.241	27.445	-10.049	1.00	102.95	C
ATOM	3391	C	CYS	D	643	-10.504	28.309	-9.031	1.00	100.68	C
ATOM	3392	O	CYS	D	643	-10.472	29.535	-9.152	1.00	100.62	O
ATOM	3393	CB	CYS	D	643	-12.275	26.563	-9.342	1.00	103.59	C
ATOM	3394	SG	CYS	D	643	-13.485	25.768	-10.448	1.00	102.50	S
ATOM	3395	N	TRP	D	644	-9.908	27.663	-8.033	1.00	97.42	N
ATOM	3396	CA	TRP	D	644	-9.167	28.377	-7.000	1.00	93.72	C
ATOM	3397	C	TRP	D	644	-7.741	28.703	-7.445	1.00	90.99	C
ATOM	3398	O	TRP	D	644	-7.532	29.219	-8.542	1.00	91.82	O
ATOM	3399	CB	TRP	D	644	-9.144	27.564	-5.698	1.00	93.17	C
ATOM	3400	CG	TRP	D	644	-8.830	26.110	-5.874	1.00	92.17	C

ATOM	3401	CD1	TRP	D	644	-9.645	25.153	-6.409	1.00	92.07	C
ATOM	3402	CD2	TRP	D	644	-7.613	25.446	-5.516	1.00	91.66	C
ATOM	3403	NE1	TRP	D	644	-9.011	23.934	-6.405	1.00	91.70	N
ATOM	3404	CE2	TRP	D	644	-7.762	24.085	-5.864	1.00	91.39	C
ATOM	3405	CE3	TRP	D	644	-6.409	25.868	-4.935	1.00	91.54	C
ATOM	3406	CZ2	TRP	D	644	-6.752	23.142	-5.651	1.00	91.23	C
ATOM	3407	CZ3	TRP	D	644	-5.402	24.929	-4.723	1.00	91.15	C
ATOM	3408	CH2	TRP	D	644	-5.582	23.581	-5.081	1.00	91.44	C
ATOM	3409	N	ILE	D	645	-6.771	28.404	-6.588	1.00	87.01	N
ATOM	3410	CA	ILE	D	645	-5.364	28.668	-6.873	1.00	82.82	C
ATOM	3411	C	ILE	D	645	-5.059	30.145	-7.063	1.00	79.68	C
ATOM	3412	O	ILE	D	645	-4.244	30.714	-6.338	1.00	78.71	O
ATOM	3413	CB	ILE	D	645	-4.881	27.907	-8.121	1.00	83.33	C
ATOM	3414	CG1	ILE	D	645	-4.632	26.444	-7.761	1.00	83.90	C
ATOM	3415	CG2	ILE	D	645	-3.609	28.546	-8.668	1.00	83.53	C
ATOM	3416	CD1	ILE	D	645	-3.919	25.666	-8.839	1.00	85.34	C
ATOM	3417	N	SER	D	646	-5.697	30.763	-8.049	1.00	76.22	N
ATOM	3418	CA	SER	D	646	-5.477	32.176	-8.308	1.00	72.36	C
ATOM	3419	C	SER	D	646	-5.791	32.968	-7.044	1.00	68.74	C
ATOM	3420	O	SER	D	646	-5.033	33.854	-6.651	1.00	67.25	O
ATOM	3421	CB	SER	D	646	-6.364	32.652	-9.457	1.00	73.20	C
ATOM	3422	OG	SER	D	646	-6.150	34.028	-9.719	1.00	72.80	O
ATOM	3423	N	GLU	D	647	-6.907	32.636	-6.404	1.00	65.08	N
ATOM	3424	CA	GLU	D	647	-7.306	33.317	-5.181	1.00	62.17	C
ATOM	3425	C	GLU	D	647	-6.456	32.834	-4.007	1.00	59.05	C
ATOM	3426	O	GLU	D	647	-5.992	33.633	-3.193	1.00	56.23	O
ATOM	3427	CB	GLU	D	647	-8.788	33.067	-4.894	1.00	63.15	C
ATOM	3428	CG	GLU	D	647	-9.310	33.796	-3.662	1.00	66.05	C
ATOM	3429	CD	GLU	D	647	-9.198	35.310	-3.773	1.00	68.11	C
ATOM	3430	OE1	GLU	D	647	-9.806	35.891	-4.699	1.00	69.38	O
ATOM	3431	OE2	GLU	D	647	-8.504	35.918	-2.929	1.00	68.44	O
ATOM	3432	N	MET	D	648	-6.250	31.523	-3.925	1.00	56.89	N
ATOM	3433	CA	MET	D	648	-5.442	30.963	-2.852	1.00	55.25	C
ATOM	3434	C	MET	D	648	-4.088	31.644	-2.788	1.00	53.08	C
ATOM	3435	O	MET	D	648	-3.683	32.139	-1.737	1.00	53.75	O
ATOM	3436	CB	MET	D	648	-5.237	29.468	-3.050	1.00	55.54	C
ATOM	3437	CG	MET	D	648	-6.100	28.619	-2.147	1.00	60.03	C
ATOM	3438	SD	MET	D	648	-5.943	29.094	-0.401	1.00	63.69	S
ATOM	3439	CE	MET	D	648	-7.335	30.206	-0.245	1.00	58.42	C
ATOM	3440	N	VAL	D	649	-3.391	31.667	-3.919	1.00	49.36	N
ATOM	3441	CA	VAL	D	649	-2.077	32.285	-3.988	1.00	46.89	C
ATOM	3442	C	VAL	D	649	-2.086	33.707	-3.437	1.00	44.43	C
ATOM	3443	O	VAL	D	649	-1.139	34.121	-2.774	1.00	44.35	O
ATOM	3444	CB	VAL	D	649	-1.541	32.275	-5.437	1.00	47.15	C
ATOM	3445	CG1	VAL	D	649	-0.321	33.168	-5.554	1.00	49.44	C
ATOM	3446	CG2	VAL	D	649	-1.166	30.847	-5.831	1.00	47.73	C
ATOM	3447	N	VAL	D	650	-3.153	34.454	-3.705	1.00	41.65	N
ATOM	3448	CA	VAL	D	650	-3.261	35.817	-3.199	1.00	38.93	C
ATOM	3449	C	VAL	D	650	-3.440	35.780	-1.688	1.00	36.51	C
ATOM	3450	O	VAL	D	650	-2.888	36.611	-0.966	1.00	38.35	O
ATOM	3451	CB	VAL	D	650	-4.468	36.562	-3.818	1.00	40.92	C
ATOM	3452	CG1	VAL	D	650	-4.664	37.924	-3.131	1.00	36.92	C
ATOM	3453	CG2	VAL	D	650	-4.249	36.741	-5.306	1.00	39.66	C
ATOM	3454	N	GLN	D	651	-4.220	34.814	-1.219	1.00	34.68	N
ATOM	3455	CA	GLN	D	651	-4.477	34.652	0.206	1.00	35.25	C
ATOM	3456	C	GLN	D	651	-3.260	34.147	0.977	1.00	33.77	C
ATOM	3457	O	GLN	D	651	-3.045	34.530	2.122	1.00	33.36	O
ATOM	3458	CB	GLN	D	651	-5.654	33.704	0.423	1.00	35.38	C
ATOM	3459	CG	GLN	D	651	-6.992	34.289	-0.005	1.00	39.24	C
ATOM	3460	CD	GLN	D	651	-7.201	35.707	0.514	1.00	39.71	C
ATOM	3461	OE1	GLN	D	651	-6.848	36.026	1.651	1.00	41.62	O
ATOM	3462	NE2	GLN	D	651	-7.779	36.562	-0.320	1.00	41.54	N
ATOM	3463	N	LEU	D	652	-2.473	33.282	0.350	1.00	32.28	N

ATOM	3464	CA	LEU	D	652	-1.278	32.749	0.989	1.00	32.03	C
ATOM	3465	C	LEU	D	652	-0.255	33.850	1.164	1.00	31.64	C
ATOM	3466	O	LEU	D	652	0.453	33.899	2.160	1.00	32.05	O
ATOM	3467	CB	LEU	D	652	-0.671	31.636	0.143	1.00	31.97	C
ATOM	3468	CG	LEU	D	652	-1.391	30.298	0.254	1.00	30.73	C
ATOM	3469	CD1	LEU	D	652	-0.879	29.344	-0.811	1.00	30.88	C
ATOM	3470	CD2	LEU	D	652	-1.164	29.740	1.649	1.00	30.69	C
ATOM	3471	N	SER	D	653	-0.180	34.740	0.188	1.00	32.28	N
ATOM	3472	CA	SER	D	653	0.767	35.831	0.264	1.00	34.28	C
ATOM	3473	C	SER	D	653	0.393	36.792	1.390	1.00	35.52	C
ATOM	3474	O	SER	D	653	1.260	37.317	2.083	1.00	35.54	O
ATOM	3475	CB	SER	D	653	0.819	36.568	-1.074	1.00	34.23	C
ATOM	3476	OG	SER	D	653	1.768	37.617	-1.021	1.00	35.34	O
ATOM	3477	N	ASP	D	654	-0.899	37.036	1.576	1.00	37.08	N
ATOM	3478	CA	ASP	D	654	-1.315	37.931	2.647	1.00	38.55	C
ATOM	3479	C	ASP	D	654	-1.021	37.290	3.990	1.00	36.67	C
ATOM	3480	O	ASP	D	654	-0.482	37.937	4.887	1.00	37.06	O
ATOM	3481	CB	ASP	D	654	-2.805	38.266	2.540	1.00	43.76	C
ATOM	3482	CG	ASP	D	654	-3.066	39.469	1.647	1.00	50.69	C
ATOM	3483	OD1	ASP	D	654	-2.380	40.504	1.835	1.00	55.30	O
ATOM	3484	OD2	ASP	D	654	-3.954	39.389	0.765	1.00	53.94	O
ATOM	3485	N	SER	D	655	-1.371	36.016	4.127	1.00	33.71	N
ATOM	3486	CA	SER	D	655	-1.119	35.299	5.375	1.00	32.76	C
ATOM	3487	C	SER	D	655	0.370	35.228	5.703	1.00	32.30	C
ATOM	3488	O	SER	D	655	0.759	35.327	6.867	1.00	33.34	O
ATOM	3489	CB	SER	D	655	-1.695	33.883	5.303	1.00	29.84	C
ATOM	3490	OG	SER	D	655	-3.108	33.915	5.437	1.00	32.16	O
ATOM	3491	N	LEU	D	656	1.196	35.049	4.677	1.00	31.24	N
ATOM	3492	CA	LEU	D	656	2.641	34.959	4.863	1.00	30.45	C
ATOM	3493	C	LEU	D	656	3.198	36.325	5.205	1.00	29.81	C
ATOM	3494	O	LEU	D	656	4.071	36.455	6.063	1.00	30.17	O
ATOM	3495	CB	LEU	D	656	3.308	34.424	3.596	1.00	30.74	C
ATOM	3496	CG	LEU	D	656	3.135	32.926	3.337	1.00	31.26	C
ATOM	3497	CD1	LEU	D	656	3.629	32.574	1.937	1.00	29.15	C
ATOM	3498	CD2	LEU	D	656	3.896	32.144	4.403	1.00	30.48	C
ATOM	3499	N	THR	D	657	2.681	37.344	4.535	1.00	30.26	N
ATOM	3500	CA	THR	D	657	3.104	38.712	4.783	1.00	32.29	C
ATOM	3501	C	THR	D	657	2.778	39.138	6.213	1.00	32.55	C
ATOM	3502	O	THR	D	657	3.583	39.802	6.862	1.00	34.64	O
ATOM	3503	CB	THR	D	657	2.432	39.677	3.802	1.00	34.30	C
ATOM	3504	OG1	THR	D	657	2.838	39.345	2.471	1.00	32.27	O
ATOM	3505	CG2	THR	D	657	2.826	41.122	4.110	1.00	33.78	C
ATOM	3506	N	ASP	D	658	1.601	38.763	6.702	1.00	34.08	N
ATOM	3507	CA	ASP	D	658	1.199	39.097	8.071	1.00	33.18	C
ATOM	3508	C	ASP	D	658	2.129	38.357	9.031	1.00	31.81	C
ATOM	3509	O	ASP	D	658	2.603	38.903	10.027	1.00	30.73	O
ATOM	3510	CB	ASP	D	658	-0.239	38.636	8.347	1.00	38.52	C
ATOM	3511	CG	ASP	D	658	-1.272	39.288	7.424	1.00	44.07	C
ATOM	3512	OD1	ASP	D	658	-2.462	38.886	7.501	1.00	44.99	O
ATOM	3513	OD2	ASP	D	658	-0.908	40.195	6.634	1.00	47.21	O
ATOM	3514	N	LEU	D	659	2.380	37.094	8.721	1.00	29.64	N
ATOM	3515	CA	LEU	D	659	3.234	36.260	9.550	1.00	29.57	C
ATOM	3516	C	LEU	D	659	4.643	36.850	9.684	1.00	30.44	C
ATOM	3517	O	LEU	D	659	5.180	36.946	10.780	1.00	28.18	O
ATOM	3518	CB	LEU	D	659	3.294	34.856	8.952	1.00	27.20	C
ATOM	3519	CG	LEU	D	659	3.988	33.762	9.749	1.00	28.07	C
ATOM	3520	CD1	LEU	D	659	3.273	33.547	11.073	1.00	24.43	C
ATOM	3521	CD2	LEU	D	659	3.992	32.481	8.929	1.00	26.60	C
ATOM	3522	N	LEU	D	660	5.223	37.263	8.561	1.00	32.08	N
ATOM	3523	CA	LEU	D	660	6.566	37.839	8.542	1.00	32.91	C
ATOM	3524	C	LEU	D	660	6.762	38.890	9.628	1.00	34.49	C
ATOM	3525	O	LEU	D	660	7.775	38.895	10.326	1.00	36.94	O
ATOM	3526	CB	LEU	D	660	6.844	38.458	7.169	1.00	32.39	C

ATOM	3527	CG	LEU	D	660	8.290	38.718	6.733	1.00	32.52	C
ATOM	3528	CD1	LEU	D	660	9.087	37.429	6.762	1.00	32.35	C
ATOM	3529	CD2	LEU	D	660	8.301	39.308	5.333	1.00	32.10	C
ATOM	3530	N	ASP	D	661	5.792	39.778	9.783	1.00	36.15	N
ATOM	3531	CA	ASP	D	661	5.894	40.832	10.785	1.00	34.98	C
ATOM	3532	C	ASP	D	661	5.908	40.354	12.243	1.00	32.23	C
ATOM	3533	O	ASP	D	661	6.042	41.165	13.153	1.00	33.01	O
ATOM	3534	CB	ASP	D	661	4.773	41.863	10.578	1.00	37.81	C
ATOM	3535	CG	ASP	D	661	5.132	42.913	9.528	1.00	43.94	C
ATOM	3536	OD1	ASP	D	661	6.117	43.651	9.758	1.00	46.95	O
ATOM	3537	OD2	ASP	D	661	4.443	43.006	8.479	1.00	44.46	O
ATOM	3538	N	LYS	D	662	5.783	39.050	12.475	1.00	27.57	N
ATOM	3539	CA	LYS	D	662	5.805	38.531	13.848	1.00	25.47	C
ATOM	3540	C	LYS	D	662	7.216	38.116	14.290	1.00	25.22	C
ATOM	3541	O	LYS	D	662	7.436	37.750	15.449	1.00	24.24	O
ATOM	3542	CB	LYS	D	662	4.864	37.328	13.975	1.00	23.70	C
ATOM	3543	CG	LYS	D	662	3.433	37.635	13.543	1.00	26.08	C
ATOM	3544	CD	LYS	D	662	2.815	38.689	14.439	1.00	27.79	C
ATOM	3545	CE	LYS	D	662	1.554	39.262	13.821	1.00	30.66	C
ATOM	3546	NZ	LYS	D	662	0.627	38.194	13.388	1.00	35.04	N
ATOM	3547	N	PHE	D	663	8.165	38.167	13.360	1.00	22.40	N
ATOM	3548	CA	PHE	D	663	9.538	37.784	13.662	1.00	24.06	C
ATOM	3549	C	PHE	D	663	10.503	38.921	13.350	1.00	23.21	C
ATOM	3550	O	PHE	D	663	10.111	39.918	12.759	1.00	23.66	O
ATOM	3551	CB	PHE	D	663	9.915	36.520	12.861	1.00	25.53	C
ATOM	3552	CG	PHE	D	663	9.010	35.335	13.133	1.00	26.81	C
ATOM	3553	CD1	PHE	D	663	7.894	35.091	12.331	1.00	27.78	C
ATOM	3554	CD2	PHE	D	663	9.244	34.499	14.226	1.00	22.65	C
ATOM	3555	CE1	PHE	D	663	7.021	34.022	12.617	1.00	26.90	C
ATOM	3556	CE2	PHE	D	663	8.384	33.443	14.518	1.00	24.82	C
ATOM	3557	CZ	PHE	D	663	7.273	33.202	13.714	1.00	25.89	C
ATOM	3558	N	SER	D	664	11.756	38.773	13.774	1.00	24.44	N
ATOM	3559	CA	SER	D	664	12.791	39.775	13.527	1.00	25.43	C
ATOM	3560	C	SER	D	664	14.016	39.062	12.985	1.00	24.80	C
ATOM	3561	O	SER	D	664	14.173	37.855	13.153	1.00	25.13	O
ATOM	3562	CB	SER	D	664	13.204	40.487	14.825	1.00	26.59	C
ATOM	3563	OG	SER	D	664	12.087	40.922	15.569	1.00	31.80	O
ATOM	3564	N	ASN	D	665	14.894	39.821	12.350	1.00	24.87	N
ATOM	3565	CA	ASN	D	665	16.136	39.277	11.819	1.00	24.88	C
ATOM	3566	C	ASN	D	665	17.097	39.010	12.969	1.00	24.12	C
ATOM	3567	O	ASN	D	665	16.887	39.477	14.089	1.00	21.58	O
ATOM	3568	CB	ASN	D	665	16.785	40.284	10.871	1.00	26.92	C
ATOM	3569	CG	ASN	D	665	15.990	40.484	9.610	1.00	24.93	C
ATOM	3570	OD1	ASN	D	665	16.013	39.646	8.718	1.00	28.79	O
ATOM	3571	ND2	ASN	D	665	15.269	41.594	9.533	1.00	27.05	N
ATOM	3572	N	ILE	D	666	18.149	38.252	12.680	1.00	24.28	N
ATOM	3573	CA	ILE	D	666	19.182	37.947	13.661	1.00	26.69	C
ATOM	3574	C	ILE	D	666	20.530	38.117	12.965	1.00	28.56	C
ATOM	3575	O	ILE	D	666	20.594	38.244	11.746	1.00	29.39	O
ATOM	3576	CB	ILE	D	666	19.058	36.494	14.213	1.00	26.87	C
ATOM	3577	CG1	ILE	D	666	19.111	35.480	13.061	1.00	24.65	C
ATOM	3578	CG2	ILE	D	666	17.764	36.348	15.000	1.00	24.84	C
ATOM	3579	CD1	ILE	D	666	19.048	34.021	13.530	1.00	27.83	C
ATOM	3580	N	SER	D	667	21.606	38.116	13.735	1.00	33.18	N
ATOM	3581	CA	SER	D	667	22.940	38.287	13.167	1.00	36.42	C
ATOM	3582	C	SER	D	667	23.378	37.109	12.290	1.00	36.58	C
ATOM	3583	O	SER	D	667	24.070	37.301	11.288	1.00	38.40	O
ATOM	3584	CB	SER	D	667	23.959	38.511	14.292	1.00	39.38	C
ATOM	3585	OG	SER	D	667	25.231	38.838	13.760	1.00	46.92	O
ATOM	3586	N	GLU	D	668	22.993	35.892	12.667	1.00	34.88	N
ATOM	3587	CA	GLU	D	668	23.356	34.711	11.882	1.00	34.52	C
ATOM	3588	C	GLU	D	668	22.581	33.481	12.320	1.00	31.66	C
ATOM	3589	O	GLU	D	668	21.932	33.497	13.353	1.00	29.21	O

ATOM	3590	CB	GLU	D	668	24.870	34.424	11.971	1.00	38.03	C
ATOM	3591	CG	GLU	D	668	25.628	35.126	13.108	1.00	44.35	C
ATOM	3592	CD	GLU	D	668	25.293	34.587	14.486	1.00	48.70	C
ATOM	3593	OE1	GLU	D	668	24.088	34.510	14.817	1.00	51.51	O
ATOM	3594	OE2	GLU	D	668	26.237	34.253	15.243	1.00	49.33	O
ATOM	3595	N	GLY	D	669	22.655	32.418	11.526	1.00	31.97	N
ATOM	3596	CA	GLY	D	669	21.967	31.179	11.860	1.00	32.06	C
ATOM	3597	C	GLY	D	669	20.536	31.057	11.364	1.00	32.25	C
ATOM	3598	O	GLY	D	669	20.025	31.933	10.665	1.00	33.15	O
ATOM	3599	N	LEU	D	670	19.890	29.956	11.742	1.00	33.75	N
ATOM	3600	CA	LEU	D	670	18.504	29.657	11.368	1.00	32.29	C
ATOM	3601	C	LEU	D	670	17.562	30.800	11.776	1.00	30.44	C
ATOM	3602	O	LEU	D	670	17.341	31.042	12.974	1.00	30.45	O
ATOM	3603	CB	LEU	D	670	18.061	28.363	12.058	1.00	35.46	C
ATOM	3604	CG	LEU	D	670	16.981	27.492	11.395	1.00	37.43	C
ATOM	3605	CD1	LEU	D	670	16.490	26.458	12.406	1.00	37.83	C
ATOM	3606	CD2	LEU	D	670	15.826	28.346	10.919	1.00	40.46	C
ATOM	3607	N	SER	D	671	17.001	31.482	10.778	1.00	25.84	N
ATOM	3608	CA	SER	D	671	16.094	32.615	11.007	1.00	23.68	C
ATOM	3609	C	SER	D	671	14.693	32.368	10.446	1.00	23.41	C
ATOM	3610	O	SER	D	671	14.529	32.194	9.236	1.00	21.63	O
ATOM	3611	CB	SER	D	671	16.675	33.871	10.356	1.00	23.21	C
ATOM	3612	OG	SER	D	671	15.746	34.934	10.338	1.00	25.59	O
ATOM	3613	N	ASN	D	672	13.689	32.349	11.320	1.00	21.36	N
ATOM	3614	CA	ASN	D	672	12.308	32.143	10.875	1.00	22.35	C
ATOM	3615	C	ASN	D	672	11.912	33.258	9.902	1.00	22.21	C
ATOM	3616	O	ASN	D	672	11.157	33.032	8.950	1.00	24.69	O
ATOM	3617	CB	ASN	D	672	11.337	32.149	12.065	1.00	20.58	C
ATOM	3618	CG	ASN	D	672	11.329	30.833	12.837	1.00	21.92	C
ATOM	3619	OD1	ASN	D	672	12.025	29.886	12.480	1.00	19.61	O
ATOM	3620	ND2	ASN	D	672	10.534	30.776	13.908	1.00	17.38	N
ATOM	3621	N	TYR	D	673	12.432	34.456	10.145	1.00	21.48	N
ATOM	3622	CA	TYR	D	673	12.149	35.619	9.304	1.00	21.97	C
ATOM	3623	C	TYR	D	673	12.655	35.459	7.864	1.00	21.83	C
ATOM	3624	O	TYR	D	673	11.902	35.648	6.903	1.00	20.20	O
ATOM	3625	CB	TYR	D	673	12.784	36.886	9.904	1.00	23.46	C
ATOM	3626	CG	TYR	D	673	12.445	38.150	9.131	1.00	26.59	C
ATOM	3627	CD1	TYR	D	673	11.410	38.985	9.543	1.00	26.58	C
ATOM	3628	CD2	TYR	D	673	13.081	38.442	7.920	1.00	30.47	C
ATOM	3629	CE1	TYR	D	673	11.005	40.066	8.768	1.00	28.11	C
ATOM	3630	CE2	TYR	D	673	12.679	39.522	7.134	1.00	28.23	C
ATOM	3631	CZ	TYR	D	673	11.639	40.322	7.565	1.00	27.76	C
ATOM	3632	OH	TYR	D	673	11.205	41.353	6.771	1.00	30.64	O
ATOM	3633	N	SER	D	674	13.929	35.121	7.701	1.00	22.90	N
ATOM	3634	CA	SER	D	674	14.463	34.997	6.352	1.00	25.20	C
ATOM	3635	C	SER	D	674	13.767	33.896	5.585	1.00	24.29	C
ATOM	3636	O	SER	D	674	13.400	34.080	4.425	1.00	25.42	O
ATOM	3637	CB	SER	D	674	15.985	34.779	6.373	1.00	26.07	C
ATOM	3638	OG	SER	D	674	16.352	33.749	7.265	1.00	33.54	O
ATOM	3639	N	ILE	D	675	13.568	32.753	6.227	1.00	23.44	N
ATOM	3640	CA	ILE	D	675	12.878	31.653	5.558	1.00	25.04	C
ATOM	3641	C	ILE	D	675	11.495	32.101	5.075	1.00	23.96	C
ATOM	3642	O	ILE	D	675	11.128	31.875	3.924	1.00	24.31	O
ATOM	3643	CB	ILE	D	675	12.701	30.456	6.493	1.00	26.81	C
ATOM	3644	CG1	ILE	D	675	14.068	29.859	6.822	1.00	27.96	C
ATOM	3645	CG2	ILE	D	675	11.794	29.421	5.849	1.00	29.47	C
ATOM	3646	CD1	ILE	D	675	14.017	28.844	7.936	1.00	31.50	C
ATOM	3647	N	ILE	D	676	10.738	32.749	5.949	1.00	24.69	N
ATOM	3648	CA	ILE	D	676	9.406	33.209	5.581	1.00	26.76	C
ATOM	3649	C	ILE	D	676	9.490	34.244	4.466	1.00	28.81	C
ATOM	3650	O	ILE	D	676	8.621	34.297	3.595	1.00	28.83	O
ATOM	3651	CB	ILE	D	676	8.677	33.815	6.811	1.00	26.99	C
ATOM	3652	CG1	ILE	D	676	8.440	32.719	7.858	1.00	22.68	C

ATOM	3653	CG2	ILE	D	676	7.356	34.476	6.388	1.00	23.23	C
ATOM	3654	CD1	ILE	D	676	7.799	33.227	9.159	1.00	17.83	C
ATOM	3655	N	ASP	D	677	10.547	35.056	4.485	1.00	31.95	N
ATOM	3656	CA	ASP	D	677	10.729	36.089	3.468	1.00	32.21	C
ATOM	3657	C	ASP	D	677	10.961	35.454	2.095	1.00	32.22	C
ATOM	3658	O	ASP	D	677	10.474	35.965	1.092	1.00	29.94	O
ATOM	3659	CB	ASP	D	677	11.909	37.006	3.826	1.00	34.63	C
ATOM	3660	CG	ASP	D	677	11.887	38.319	3.049	1.00	33.89	C
ATOM	3661	OD1	ASP	D	677	12.959	38.922	2.860	1.00	36.85	O
ATOM	3662	OD2	ASP	D	677	10.795	38.759	2.634	1.00	36.66	O
ATOM	3663	N	LYS	D	678	11.711	34.352	2.051	1.00	33.09	N
ATOM	3664	CA	LYS	D	678	11.957	33.651	0.790	1.00	36.81	C
ATOM	3665	C	LYS	D	678	10.578	33.231	0.270	1.00	36.33	C
ATOM	3666	O	LYS	D	678	10.234	33.482	-0.874	1.00	39.07	O
ATOM	3667	CB	LYS	D	678	12.785	32.371	-0.993	1.00	36.47	C
ATOM	3668	CG	LYS	D	678	13.982	32.472	1.912	1.00	43.59	C
ATOM	3669	CD	LYS	D	678	15.174	33.140	1.250	1.00	45.20	C
ATOM	3670	CE	LYS	D	678	16.381	33.135	2.182	1.00	46.75	C
ATOM	3671	NZ	LYS	D	678	17.522	33.918	1.623	1.00	48.88	N
ATOM	3672	N	LEU	D	679	9.800	32.579	1.124	1.00	36.79	N
ATOM	3673	CA	LEU	D	679	8.462	32.130	0.756	1.00	37.88	C
ATOM	3674	C	LEU	D	679	7.656	33.264	0.145	1.00	37.94	C
ATOM	3675	O	LEU	D	679	7.076	33.116	-0.919	1.00	37.41	O
ATOM	3676	CB	LEU	D	679	7.731	31.587	1.981	1.00	36.90	C
ATOM	3677	CG	LEU	D	679	7.811	30.078	2.212	1.00	40.44	C
ATOM	3678	CD1	LEU	D	679	9.228	29.591	1.984	1.00	38.86	C
ATOM	3679	CD2	LEU	D	679	7.322	29.751	3.619	1.00	38.47	C
ATOM	3680	N	VAL	D	680	7.607	34.398	0.827	1.00	38.68	N
ATOM	3681	CA	VAL	D	680	6.869	35.524	0.293	1.00	40.58	C
ATOM	3682	C	VAL	D	680	7.385	35.883	-1.101	1.00	42.70	C
ATOM	3683	O	VAL	D	680	6.610	36.250	-1.977	1.00	40.04	O
ATOM	3684	CB	VAL	D	680	6.991	36.752	1.197	1.00	41.30	C
ATOM	3685	CG1	VAL	D	680	6.397	37.959	0.498	1.00	38.50	C
ATOM	3686	CG2	VAL	D	680	6.278	36.489	2.535	1.00	40.52	C
ATOM	3687	N	ASN	D	681	8.694	35.767	-1.308	1.00	44.70	N
ATOM	3688	CA	ASN	D	681	9.268	36.092	-2.605	1.00	47.19	C
ATOM	3689	C	ASN	D	681	8.870	35.115	-3.699	1.00	49.09	C
ATOM	3690	O	ASN	D	681	8.402	35.526	-4.758	1.00	49.55	O
ATOM	3691	CB	ASN	D	681	10.793	36.183	-2.517	1.00	46.42	C
ATOM	3692	CG	ASN	D	681	11.255	37.431	-1.788	1.00	47.04	C
ATOM	3693	OD1	ASN	D	681	10.559	38.447	-1.786	1.00	46.74	O
ATOM	3694	ND2	ASN	D	681	12.438	37.369	-1.179	1.00	47.65	N
ATOM	3695	N	ILE	D	682	9.034	33.823	-3.443	1.00	52.35	N
ATOM	3696	CA	ILE	D	682	8.689	32.820	-4.444	1.00	56.10	C
ATOM	3697	C	ILE	D	682	7.199	32.786	-4.778	1.00	58.45	C
ATOM	3698	O	ILE	D	682	6.812	32.342	-5.860	1.00	60.06	O
ATOM	3699	CB	ILE	D	682	9.155	31.390	-4.017	1.00	55.79	C
ATOM	3700	CG1	ILE	D	682	7.956	30.505	-3.664	1.00	56.27	C
ATOM	3701	CG2	ILE	D	682	10.125	31.480	-2.854	1.00	55.49	C
ATOM	3702	CD1	ILE	D	682	7.271	30.852	-2.363	1.00	57.94	C
ATOM	3703	N	VAL	D	683	6.367	33.260	-3.858	1.00	60.52	N
ATOM	3704	CA	VAL	D	683	4.925	33.257	-4.074	1.00	63.15	C
ATOM	3705	C	VAL	D	683	4.446	34.534	-4.752	1.00	65.06	C
ATOM	3706	O	VAL	D	683	3.555	34.497	-5.596	1.00	65.30	O
ATOM	3707	CB	VAL	D	683	4.161	33.064	-2.740	1.00	63.35	C
ATOM	3708	CG1	VAL	D	683	4.430	34.228	-1.804	1.00	64.93	C
ATOM	3709	CG2	VAL	D	683	2.676	32.928	-3.005	1.00	63.39	C
ATOM	3710	N	ASP	D	684	5.038	35.664	-4.384	1.00	67.27	N
ATOM	3711	CA	ASP	D	684	4.660	36.934	-4.986	1.00	69.50	C
ATOM	3712	C	ASP	D	684	4.993	36.934	-6.472	1.00	71.59	C
ATOM	3713	O	ASP	D	684	4.454	37.735	-7.237	1.00	71.99	O
ATOM	3714	CB	ASP	D	684	5.367	38.091	-4.276	1.00	68.58	C
ATOM	3715	CG	ASP	D	684	4.664	38.495	-2.991	1.00	69.72	C

ATOM	3716	OD1	ASP	D	684	4.179	37.594	-2.273	1.00	70.09	O
ATOM	3717	OD2	ASP	D	684	4.599	39.708	-2.692	1.00	69.37	O
ATOM	3718	N	ASP	D	685	5.880	36.032	-6.880	1.00	73.80	N
ATOM	3719	CA	ASP	D	685	6.251	35.929	-8.285	1.00	75.57	C
ATOM	3720	C	ASP	D	685	5.175	35.127	-9.001	1.00	76.68	C
ATOM	3721	O	ASP	D	685	4.844	35.398	-10.156	1.00	77.13	O
ATOM	3722	CB	ASP	D	685	7.608	35.243	-8.442	1.00	75.95	C
ATOM	3723	CG	ASP	D	685	8.738	36.038	-7.821	1.00	77.23	C
ATOM	3724	OD1	ASP	D	685	8.823	37.260	-8.075	1.00	76.55	O
ATOM	3725	OD2	ASP	D	685	9.548	35.439	-7.084	1.00	78.99	O
ATOM	3726	N	LEU	D	686	4.628	34.134	-8.311	1.00	77.72	N
ATOM	3727	CA	LEU	D	686	3.570	33.321	-8.892	1.00	79.71	C
ATOM	3728	C	LEU	D	686	2.360	34.228	-9.082	1.00	80.70	C
ATOM	3729	O	LEU	D	686	1.616	34.099	-10.053	1.00	80.11	O
ATOM	3730	CB	LEU	D	686	3.215	32.163	-7.959	1.00	79.55	C
ATOM	3731	CG	LEU	D	686	4.346	31.181	-7.646	1.00	80.42	C
ATOM	3732	CD1	LEU	D	686	3.840	30.122	-6.676	1.00	80.91	C
ATOM	3733	CD2	LEU	D	686	4.849	30.537	-8.929	1.00	79.73	C
ATOM	3734	N	VAL	D	687	2.182	35.151	-8.142	1.00	82.79	N
ATOM	3735	CA	VAL	D	687	1.080	36.103	-8.185	1.00	85.25	C
ATOM	3736	C	VAL	D	687	1.232	36.965	-9.433	1.00	86.98	C
ATOM	3737	O	VAL	D	687	0.248	37.366	-10.053	1.00	87.41	O
ATOM	3738	CB	VAL	D	687	1.088	37.025	-6.943	1.00	85.38	C
ATOM	3739	CG1	VAL	D	687	-0.095	37.983	-6.993	1.00	85.62	C
ATOM	3740	CG2	VAL	D	687	1.049	36.191	-5.673	1.00	84.82	C
ATOM	3741	N	GLU	D	688	2.480	37.242	-9.792	1.00	89.00	N
ATOM	3742	CA	GLU	D	688	2.786	38.048	-10.964	1.00	91.27	C
ATOM	3743	C	GLU	D	688	2.228	37.366	-12.213	1.00	92.66	C
ATOM	3744	O	GLU	D	688	1.660	38.020	-13.092	1.00	92.59	O
ATOM	3745	CB	GLU	D	688	4.305	38.227	-11.075	1.00	91.61	C
ATOM	3746	CG	GLU	D	688	4.768	39.112	-12.217	1.00	92.97	C
ATOM	3747	CD	GLU	D	688	6.227	39.507	-12.081	1.00	93.95	C
ATOM	3748	OE1	GLU	D	688	7.074	38.610	-11.886	1.00	94.46	O
ATOM	3749	OE2	GLU	D	688	6.529	40.716	-12.171	1.00	94.79	O
ATOM	3750	N	CYS	D	689	2.381	36.046	-12.277	1.00	94.04	N
ATOM	3751	CA	CYS	D	689	1.887	35.268	-13.408	1.00	95.48	C
ATOM	3752	C	CYS	D	689	0.356	35.271	-13.421	1.00	96.12	C
ATOM	3753	O	CYS	D	689	-0.268	34.972	-14.442	1.00	96.57	O
ATOM	3754	CB	CYS	D	689	2.409	33.829	-13.321	1.00	95.86	C
ATOM	3755	SG	CYS	D	689	2.002	32.775	-14.743	1.00	96.55	S
ATOM	3756	N	VAL	D	690	-0.242	35.613	-12.282	1.00	96.33	N
ATOM	3757	CA	VAL	D	690	-1.697	35.661	-12.154	1.00	96.28	C
ATOM	3758	C	VAL	D	690	-2.238	37.003	-12.642	1.00	95.97	C
ATOM	3759	O	VAL	D	690	-3.206	37.050	-13.402	1.00	95.87	O
ATOM	3760	CB	VAL	D	690	-2.134	35.450	-10.688	1.00	96.58	C
ATOM	3761	CG1	VAL	D	690	-3.649	35.491	-10.586	1.00	96.64	C
ATOM	3762	CG2	VAL	D	690	-1.604	34.123	-10.174	1.00	96.70	C
ATOM	3763	N	LYS	D	691	-1.615	38.089	-12.192	1.00	95.50	N
ATOM	3764	CA	LYS	D	691	-2.017	39.432	-12.601	1.00	95.00	C
ATOM	3765	C	LYS	D	691	-1.937	39.497	-14.123	1.00	94.21	C
ATOM	3766	O	LYS	D	691	-2.702	40.207	-14.777	1.00	94.03	O
ATOM	3767	CB	LYS	D	691	-1.075	40.469	-11.982	1.00	95.64	C
ATOM	3768	CG	LYS	D	691	-1.254	41.892	-12.501	1.00	96.98	C
ATOM	3769	CD	LYS	D	691	-2.627	42.458	-12.175	1.00	97.92	C
ATOM	3770	CE	LYS	D	691	-2.757	43.889	-12.679	1.00	98.61	C
ATOM	3771	NZ	LYS	D	691	-4.089	44.483	-12.373	1.00	99.33	N
ATOM	3772	N	GLU	D	692	-0.996	38.731	-14.667	1.00	93.18	N
ATOM	3773	CA	GLU	D	692	-0.762	38.642	-16.103	1.00	91.81	C
ATOM	3774	C	GLU	D	692	-1.879	37.862	-16.791	1.00	91.95	C
ATOM	3775	O	GLU	D	692	-2.336	38.229	-17.876	1.00	91.71	O
ATOM	3776	CB	GLU	D	692	0.576	37.944	-16.347	1.00	90.32	C
ATOM	3777	CG	GLU	D	692	0.773	37.422	-17.752	1.00	88.30	C
ATOM	3778	CD	GLU	D	692	2.032	36.591	-17.881	1.00	87.50	C

ATOM	3779	OE1	GLU	D	692	3.132	37.138	-17.656	1.00	86.63	O
ATOM	3780	OE2	GLU	D	692	1.923	35.390	-18.203	1.00	87.16	O
ATOM	3781	N	ASN	D	693	-2.312	36.783	-16.146	1.00	92.11	N
ATOM	3782	CA	ASN	D	693	-3.365	35.924	-16.676	1.00	92.10	C
ATOM	3783	C	ASN	D	693	-4.707	36.645	-16.786	1.00	92.44	C
ATOM	3784	O	ASN	D	693	-5.733	36.024	-17.068	1.00	92.48	O
ATOM	3785	CB	ASN	D	693	-3.519	34.688	-15.787	1.00	91.67	C
ATOM	3786	CG	ASN	D	693	-4.404	33.629	-16.411	1.00	91.37	C
ATOM	3787	OD1	ASN	D	693	-4.050	33.029	-17.427	1.00	91.61	O
ATOM	3788	ND2	ASN	D	693	-5.565	33.397	-15.808	1.00	90.95	N
ATOM	3789	N	SER	D	694	-4.701	37.955	-16.559	1.00	92.92	N
ATOM	3790	CA	SER	D	694	-5.927	38.740	-16.653	1.00	93.70	C
ATOM	3791	C	SER	D	694	-6.313	38.895	-18.123	1.00	94.44	C
ATOM	3792	O	SER	D	694	-7.191	39.689	-18.464	1.00	94.58	O
ATOM	3793	CB	SER	D	694	-5.726	40.122	-16.021	1.00	93.44	C
ATOM	3794	OG	SER	D	694	-4.747	40.873	-16.720	1.00	92.64	O
ATOM	3795	N	SER	D	695	-5.649	38.125	-18.984	1.00	95.04	N
ATOM	3796	CA	SER	D	695	-5.895	38.169	-20.423	1.00	95.13	C
ATOM	3797	C	SER	D	695	-6.702	36.972	-20.935	1.00	95.56	C
ATOM	3798	O	SER	D	695	-6.197	35.848	-20.998	1.00	95.95	O
ATOM	3799	CB	SER	D	695	-4.562	38.258	-21.180	1.00	94.47	C
ATOM	3800	OG	SER	D	695	-3.711	37.166	-20.871	1.00	93.11	O
ATOM	3801	N	LYS	D	696	-7.957	37.236	-21.297	1.00	95.46	N
ATOM	3802	CA	LYS	D	696	-8.879	36.227	-21.824	1.00	94.89	C
ATOM	3803	C	LYS	D	696	-8.843	34.878	-21.101	1.00	94.36	C
ATOM	3804	O	LYS	D	696	-9.328	33.871	-21.625	1.00	93.84	O
ATOM	3805	CB	LYS	D	696	-8.622	36.025	-23.319	1.00	94.98	C
ATOM	3806	N	ASP	D	697	-8.277	34.859	-19.898	1.00	93.56	N
ATOM	3807	CA	ASP	D	697	-8.186	33.630	-19.118	1.00	92.68	C
ATOM	3808	C	ASP	D	697	-8.977	33.819	-17.827	1.00	91.92	C
ATOM	3809	O	ASP	D	697	-8.590	34.609	-16.965	1.00	91.14	O
ATOM	3810	CB	ASP	D	697	-6.717	33.320	-18.800	1.00	93.02	C
ATOM	3811	CG	ASP	D	697	-6.447	31.827	-18.644	1.00	93.69	C
ATOM	3812	OD1	ASP	D	697	-7.092	31.181	-17.789	1.00	93.85	O
ATOM	3813	OD2	ASP	D	697	-5.580	31.299	-19.378	1.00	93.74	O
ATOM	3814	N	LEU	D	698	-10.087	33.098	-17.700	1.00	91.37	N
ATOM	3815	CA	LEU	D	698	-10.930	33.205	-16.514	1.00	91.28	C
ATOM	3816	C	LEU	D	698	-10.404	32.357	-15.357	1.00	92.32	C
ATOM	3817	O	LEU	D	698	-9.417	31.633	-15.497	1.00	91.67	O
ATOM	3818	CB	LEU	D	698	-12.371	32.795	-16.848	1.00	89.61	C
ATOM	3819	CG	LEU	D	698	-13.450	33.088	-15.795	1.00	88.07	C
ATOM	3820	CD1	LEU	D	698	-13.535	34.588	-15.547	1.00	86.94	C
ATOM	3821	CD2	LEU	D	698	-14.792	32.557	-16.267	1.00	86.97	C
ATOM	3822	N	LYS	D	699	-11.075	32.465	-14.213	1.00	94.08	N
ATOM	3823	CA	LYS	D	699	-10.717	31.732	-13.002	1.00	95.68	C
ATOM	3824	C	LYS	D	699	-11.705	32.139	-11.917	1.00	96.86	C
ATOM	3825	O	LYS	D	699	-11.381	32.941	-11.038	1.00	97.13	O
ATOM	3826	CB	LYS	D	699	-9.291	32.078	-12.573	1.00	95.48	C
ATOM	3827	N	LYS	D	700	-12.913	31.586	-11.986	1.00	98.29	N
ATOM	3828	CA	LYS	D	700	-13.960	31.911	-11.023	1.00	99.67	C
ATOM	3829	C	LYS	D	700	-14.250	30.798	-10.021	1.00	100.65	C
ATOM	3830	O	LYS	D	700	-14.552	29.664	-10.401	1.00	101.39	O
ATOM	3831	CB	LYS	D	700	-15.241	32.286	-11.761	1.00	99.60	C
ATOM	3832	N	SER	D	701	-14.161	31.148	-8.739	1.00	100.84	N
ATOM	3833	CA	SER	D	701	-14.412	30.230	-7.630	1.00	100.59	C
ATOM	3834	C	SER	D	701	-13.874	30.848	-6.348	1.00	100.43	C
ATOM	3835	O	SER	D	701	-13.041	30.254	-5.663	1.00	100.66	O
ATOM	3836	CB	SER	D	701	-13.737	28.894	-7.879	1.00	100.76	C
ATOM	3837	N	PHE	D	702	-14.351	32.048	-6.030	1.00	99.83	N
ATOM	3838	CA	PHE	D	702	-13.910	32.748	-4.830	1.00	98.88	C
ATOM	3839	C	PHE	D	702	-14.937	33.780	-4.372	1.00	97.79	C
ATOM	3840	O	PHE	D	702	-14.829	34.964	-4.697	1.00	97.98	O
ATOM	3841	CB	PHE	D	702	-12.566	33.429	-5.089	1.00	98.81	C

ATOM	3842	N	LYS	D	703	-15.935	33.323	-3.620	1.00	95.97	N
ATOM	3843	CA	LYS	D	703	-16.972	34.214	-3.111	1.00	93.51	C
ATOM	3844	C	LYS	D	703	-16.330	35.178	-2.122	1.00	91.41	C
ATOM	3845	O	LYS	D	703	-15.883	36.264	-2.493	1.00	91.96	O
ATOM	3846	CB	LYS	D	703	-18.071	33.406	-2.426	1.00	93.25	C
ATOM	3847	N	SER	D	704	-16.287	34.767	-0.861	1.00	88.69	N
ATOM	3848	CA	SER	D	704	-15.684	35.562	0.201	1.00	85.20	C
ATOM	3849	C	SER	D	704	-14.912	34.587	1.077	1.00	82.83	C
ATOM	3850	O	SER	D	704	-15.429	34.111	2.089	1.00	83.42	O
ATOM	3851	CB	SER	D	704	-16.763	36.259	1.035	1.00	84.52	C
ATOM	3852	OG	SER	D	704	-17.574	37.096	0.234	1.00	82.90	O
ATOM	3853	N	PRO	D	705	-13.668	34.259	0.688	1.00	79.97	N
ATOM	3854	CA	PRO	D	705	-12.863	33.325	1.476	1.00	76.91	C
ATOM	3855	C	PRO	D	705	-12.953	33.616	2.972	1.00	74.02	C
ATOM	3856	O	PRO	D	705	-12.356	34.567	3.467	1.00	74.68	O
ATOM	3857	CB	PRO	D	705	-11.460	33.535	0.916	1.00	76.37	C
ATOM	3858	CG	PRO	D	705	-11.733	33.807	-0.522	1.00	77.44	C
ATOM	3859	CD	PRO	D	705	-12.896	34.776	-0.457	1.00	78.70	C
ATOM	3860	N	GLU	D	706	-13.720	32.797	3.683	1.00	71.23	N
ATOM	3861	CA	GLU	D	706	-13.886	32.963	5.121	1.00	67.86	C
ATOM	3862	C	GLU	D	706	-12.562	32.719	5.851	1.00	63.69	C
ATOM	3863	O	GLU	D	706	-11.985	31.632	5.768	1.00	62.35	O
ATOM	3864	CB	GLU	D	706	-14.953	31.987	5.645	1.00	70.07	C
ATOM	3865	CG	GLU	D	706	-15.132	31.997	7.167	1.00	72.39	C
ATOM	3866	CD	GLU	D	706	-16.106	30.933	7.670	1.00	75.20	C
ATOM	3867	OE1	GLU	D	706	-17.334	31.081	7.449	1.00	75.30	O
ATOM	3868	OE2	GLU	D	706	-15.638	29.945	8.287	1.00	74.89	O
ATOM	3869	N	PRO	D	707	-12.060	33.735	6.572	1.00	59.49	N
ATOM	3870	CA	PRO	D	707	-10.800	33.583	7.308	1.00	56.04	C
ATOM	3871	C	PRO	D	707	-10.896	32.465	8.339	1.00	51.97	C
ATOM	3872	O	PRO	D	707	-11.812	32.437	9.158	1.00	50.54	O
ATOM	3873	CB	PRO	D	707	-10.599	34.958	7.949	1.00	56.55	C
ATOM	3874	CG	PRO	D	707	-11.999	35.492	8.074	1.00	57.25	C
ATOM	3875	CD	PRO	D	707	-12.619	35.084	6.762	1.00	58.60	C
ATOM	3876	N	ARG	D	708	-9.948	31.540	8.277	1.00	48.78	N
ATOM	3877	CA	ARG	D	708	-9.907	30.406	9.183	1.00	46.21	C
ATOM	3878	C	ARG	D	708	-8.555	30.341	9.879	1.00	43.96	C
ATOM	3879	O	ARG	D	708	-7.595	30.996	9.466	1.00	42.60	O
ATOM	3880	CB	ARG	D	708	-10.154	29.109	8.407	1.00	48.71	C
ATOM	3881	CG	ARG	D	708	-11.570	28.961	7.884	1.00	52.85	C
ATOM	3882	CD	ARG	D	708	-11.704	27.807	6.891	1.00	56.82	C
ATOM	3883	NE	ARG	D	708	-11.230	26.528	7.420	1.00	59.99	N
ATOM	3884	CZ	ARG	D	708	-11.349	25.365	6.782	1.00	61.51	C
ATOM	3885	NH1	ARG	D	708	-11.933	25.317	5.590	1.00	63.09	N
ATOM	3886	NH2	ARG	D	708	-10.867	24.251	7.322	1.00	61.87	N
ATOM	3887	N	LEU	D	709	-8.485	29.556	10.946	1.00	41.48	N
ATOM	3888	CA	LEU	D	709	-7.247	29.412	11.688	1.00	39.42	C
ATOM	3889	C	LEU	D	709	-6.624	28.053	11.395	1.00	36.66	C
ATOM	3890	O	LEU	D	709	-7.319	27.038	11.339	1.00	35.31	O
ATOM	3891	CB	LEU	D	709	-7.502	29.582	13.188	1.00	38.48	C
ATOM	3892	CG	LEU	D	709	-7.990	30.975	13.600	1.00	39.85	C
ATOM	3893	CD1	LEU	D	709	-8.041	31.071	15.111	1.00	39.71	C
ATOM	3894	CD2	LEU	D	709	-7.064	32.045	13.049	1.00	39.94	C
ATOM	3895	N	PHE	D	710	-5.310	28.047	11.194	1.00	33.55	N
ATOM	3896	CA	PHE	D	710	-4.590	26.816	10.896	1.00	31.41	C
ATOM	3897	C	PHE	D	710	-3.347	26.700	11.758	1.00	29.90	C
ATOM	3898	O	PHE	D	710	-2.717	27.710	12.080	1.00	27.69	O
ATOM	3899	CB	PHE	D	710	-4.174	26.784	9.419	1.00	31.40	C
ATOM	3900	CG	PHE	D	710	-5.334	26.816	8.450	1.00	34.01	C
ATOM	3901	CD1	PHE	D	710	-6.004	28.010	8.173	1.00	34.43	C
ATOM	3902	CD2	PHE	D	710	-5.771	25.649	7.831	1.00	33.62	C
ATOM	3903	CE1	PHE	D	710	-7.092	28.042	7.297	1.00	31.45	C
ATOM	3904	CE2	PHE	D	710	-6.861	25.672	6.951	1.00	34.68	C

Table 4

ATOM	3905	CZ	PHE	D	710	-7.520	26.876	6.687	1.00	33.49	C
ATOM	3906	N	THR	D	711	-3.002	25.478	12.160	1.00	29.11	N
ATOM	3907	CA	THR	D	711	-1.778	25.303	12.932	1.00	27.42	C
ATOM	3908	C	THR	D	711	-0.691	25.389	11.860	1.00	26.26	C
ATOM	3909	O	THR	D	711	-0.999	25.330	10.667	1.00	25.34	O
ATOM	3910	CB	THR	D	711	-1.713	23.934	13.642	1.00	26.97	C
ATOM	3911	OG1	THR	D	711	-1.979	22.894	12.704	1.00	24.41	O
ATOM	3912	CG2	THR	D	711	-2.716	23.871	14.776	1.00	25.72	C
ATOM	3913	N	PRO	D	712	0.581	25.565	12.255	1.00	26.02	N
ATOM	3914	CA	PRO	D	712	1.616	25.649	11.215	1.00	26.21	C
ATOM	3915	C	PRO	D	712	1.557	24.444	10.281	1.00	28.47	C
ATOM	3916	O	PRO	D	712	1.554	24.586	9.047	1.00	25.16	O
ATOM	3917	CB	PRO	D	712	2.902	25.718	12.026	1.00	22.24	C
ATOM	3918	CG	PRO	D	712	2.469	26.544	13.205	1.00	23.05	C
ATOM	3919	CD	PRO	D	712	1.134	25.912	13.576	1.00	23.09	C
ATOM	3920	N	GLU	D	713	1.490	23.266	10.891	1.00	29.14	N
ATOM	3921	CA	GLU	D	713	1.407	22.007	10.164	1.00	32.67	C
ATOM	3922	C	GLU	D	713	0.417	22.064	8.999	1.00	31.32	C
ATOM	3923	O	GLU	D	713	0.785	21.884	7.842	1.00	32.51	O
ATOM	3924	CB	GLU	D	713	0.971	20.889	11.118	1.00	34.67	C
ATOM	3925	CG	GLU	D	713	1.911	19.705	11.123	1.00	41.80	C
ATOM	3926	CD	GLU	D	713	1.433	18.571	12.007	1.00	40.60	C
ATOM	3927	OE1	GLU	D	713	2.151	17.559	12.077	1.00	45.79	O
ATOM	3928	OE2	GLU	D	713	0.352	18.682	12.621	1.00	39.13	O
ATOM	3929	N	GLU	D	714	-0.844	22.328	9.307	1.00	30.43	N
ATOM	3930	CA	GLU	D	714	-1.849	22.344	8.264	1.00	30.71	C
ATOM	3931	C	GLU	D	714	-1.754	23.559	7.339	1.00	28.77	C
ATOM	3932	O	GLU	D	714	-2.101	23.480	6.155	1.00	28.54	O
ATOM	3933	CB	GLU	D	714	-3.247	22.191	8.900	1.00	31.99	C
ATOM	3934	CG	GLU	D	714	-3.625	23.269	9.896	1.00	37.31	C
ATOM	3935	CD	GLU	D	714	-4.553	22.772	11.002	1.00	39.58	C
ATOM	3936	OE1	GLU	D	714	-5.266	23.612	11.597	1.00	38.58	O
ATOM	3937	OE2	GLU	D	714	-4.555	21.552	11.290	1.00	40.23	O
ATOM	3938	N	PHE	D	715	-1.266	24.684	7.847	1.00	27.44	N
ATOM	3939	CA	PHE	D	715	-1.145	25.849	6.980	1.00	24.07	C
ATOM	3940	C	PHE	D	715	-0.157	25.559	5.856	1.00	24.36	C
ATOM	3941	O	PHE	D	715	-0.419	25.855	4.690	1.00	21.57	O
ATOM	3942	CB	PHE	D	715	-0.649	27.075	7.746	1.00	23.21	C
ATOM	3943	CG	PHE	D	715	-0.450	28.296	6.871	1.00	22.37	C
ATOM	3944	CD1	PHE	D	715	-1.496	29.183	6.640	1.00	22.39	C
ATOM	3945	CD2	PHE	D	715	0.778	28.546	6.272	1.00	21.02	C
ATOM	3946	CE1	PHE	D	715	-1.319	30.312	5.824	1.00	26.50	C
ATOM	3947	CE2	PHE	D	715	0.970	29.666	5.452	1.00	22.98	C
ATOM	3948	CZ	PHE	D	715	-0.082	30.555	5.229	1.00	24.25	C
ATOM	3949	N	PHE	D	716	0.987	24.981	6.203	1.00	25.04	N
ATOM	3950	CA	PHE	D	716	1.989	24.714	5.184	1.00	28.02	C
ATOM	3951	C	PHE	D	716	1.745	23.514	4.276	1.00	29.77	C
ATOM	3952	O	PHE	D	716	2.322	23.426	3.192	1.00	30.86	O
ATOM	3953	CB	PHE	D	716	3.379	24.673	5.817	1.00	20.28	C
ATOM	3954	CG	PHE	D	716	3.882	26.036	6.199	1.00	21.93	C
ATOM	3955	CD1	PHE	D	716	3.804	26.482	7.515	1.00	19.71	C
ATOM	3956	CD2	PHE	D	716	4.351	26.913	5.217	1.00	19.54	C
ATOM	3957	CE1	PHE	D	716	4.174	27.769	7.850	1.00	19.20	C
ATOM	3958	CE2	PHE	D	716	4.725	28.208	5.536	1.00	19.96	C
ATOM	3959	CZ	PHE	D	716	4.638	28.644	6.857	1.00	20.24	C
ATOM	3960	N	ARG	D	717	0.879	22.603	4.689	1.00	32.19	N
ATOM	3961	CA	ARG	D	717	0.581	21.475	3.821	1.00	36.18	C
ATOM	3962	C	ARG	D	717	-0.269	22.103	2.716	1.00	35.80	C
ATOM	3963	O	ARG	D	717	-0.186	21.727	1.545	1.00	35.14	O
ATOM	3964	CB	ARG	D	717	-0.209	20.400	4.570	1.00	39.40	C
ATOM	3965	CG	ARG	D	717	-0.437	19.144	3.743	1.00	42.14	C
ATOM	3966	CD	ARG	D	717	-1.206	18.102	4.518	1.00	43.31	C
ATOM	3967	NE	ARG	D	717	-2.413	18.664	5.117	1.00	48.20	N

Table 4

ATOM	3968	CZ	ARG	D	717	-3.359	17.940	5.714	1.00	50.40	C
ATOM	3969	NH1	ARG	D	717	-3.240	16.618	5.787	1.00	48.68	N
ATOM	3970	NH2	ARG	D	717	-4.415	18.536	6.251	1.00	51.09	N
ATOM	3971	N	ILE	D	718	-1.074	23.086	3.110	1.00	36.09	N
ATOM	3972	CA	ILE	D	718	-1.919	23.817	2.175	1.00	33.20	C
ATOM	3973	C	ILE	D	718	-1.019	24.658	1.290	1.00	32.86	C
ATOM	3974	O	ILE	D	718	-1.242	24.769	0.085	1.00	32.44	O
ATOM	3975	CB	ILE	D	718	-2.893	24.749	2.913	1.00	32.66	C
ATOM	3976	CG1	ILE	D	718	-3.916	23.917	3.686	1.00	32.71	C
ATOM	3977	CG2	ILE	D	718	-3.596	25.668	1.924	1.00	31.11	C
ATOM	3978	CD1	ILE	D	718	-4.837	24.749	4.545	1.00	30.41	C
ATOM	3979	N	PHE	D	719	-0.003	25.265	1.895	1.00	34.20	N
ATOM	3980	CA	PHE	D	719	0.935	26.083	1.138	1.00	34.51	C
ATOM	3981	C	PHE	D	719	1.675	25.248	0.093	1.00	36.52	C
ATOM	3982	O	PHE	D	719	1.831	25.669	-1.050	1.00	36.77	O
ATOM	3983	CB	PHE	D	719	1.965	26.715	2.057	1.00	32.83	C
ATOM	3984	CG	PHE	D	719	3.112	27.338	1.321	1.00	32.14	C
ATOM	3985	CD1	PHE	D	719	2.998	28.614	0.783	1.00	32.64	C
ATOM	3986	CD2	PHE	D	719	4.303	26.640	1.150	1.00	29.99	C
ATOM	3987	CE1	PHE	D	719	4.060	29.193	0.085	1.00	31.46	C
ATOM	3988	CE2	PHE	D	719	5.363	27.201	0.459	1.00	32.01	C
ATOM	3989	CZ	PHE	D	719	5.243	28.486	-0.076	1.00	31.65	C
ATOM	3990	N	ASN	D	720	2.148	24.075	0.501	1.00	38.51	N
ATOM	3991	CA	ASN	D	720	2.871	23.185	-0.402	1.00	40.99	C
ATOM	3992	C	ASN	D	720	1.975	22.710	-1.540	1.00	42.05	C
ATOM	3993	O	ASN	D	720	2.318	22.856	-2.715	1.00	38.56	O
ATOM	3994	CB	ASN	D	720	3.406	21.975	0.365	1.00	41.82	C
ATOM	3995	CG	ASN	D	720	4.676	22.282	1.128	1.00	43.96	C
ATOM	3996	OD1	ASN	D	720	5.114	21.492	1.962	1.00	47.53	O
ATOM	3997	ND2	ASN	D	720	5.283	23.423	0.838	1.00	45.70	N
ATOM	3998	N	ARG	D	721	0.831	22.134	-1.183	1.00	44.34	N
ATOM	3999	CA	ARG	D	721	-0.119	21.655	-2.174	1.00	48.41	C
ATOM	4000	C	ARG	D	721	-0.392	22.795	-3.147	1.00	50.49	C
ATOM	4001	O	ARG	D	721	-0.153	22.679	-4.349	1.00	51.59	O
ATOM	4002	CB	ARG	D	721	-1.427	21.230	-1.494	1.00	50.30	C
ATOM	4003	CG	ARG	D	721	-2.511	20.736	-2.446	1.00	54.70	C
ATOM	4004	CD	ARG	D	721	-2.278	19.294	-2.895	1.00	60.17	C
ATOM	4005	NE	ARG	D	721	-2.917	18.317	-2.009	1.00	63.19	N
ATOM	4006	CZ	ARG	D	721	-2.833	16.996	-2.160	1.00	64.19	C
ATOM	4007	NH1	ARG	D	721	-2.131	16.482	-3.165	1.00	65.14	N
ATOM	4008	NH2	ARG	D	721	-3.457	16.185	-1.313	1.00	63.41	N
ATOM	4009	N	SER	D	722	-0.874	23.908	-2.611	1.00	52.95	N
ATOM	4010	CA	SER	D	722	-1.202	25.075	-3.418	1.00	55.12	C
ATOM	4011	C	SER	D	722	-0.090	25.474	-4.380	1.00	57.42	C
ATOM	4012	O	SER	D	722	-0.344	25.754	-5.553	1.00	57.12	O
ATOM	4013	CB	SER	D	722	-1.546	26.256	-2.508	1.00	54.05	C
ATOM	4014	OG	SER	D	722	-1.776	27.426	-3.268	1.00	54.05	O
ATOM	4015	N	ILE	D	723	1.142	25.503	-3.889	1.00	60.20	N
ATOM	4016	CA	ILE	D	723	2.266	25.876	-4.734	1.00	64.22	C
ATOM	4017	C	ILE	D	723	2.435	24.918	-5.904	1.00	67.18	C
ATOM	4018	O	ILE	D	723	2.520	25.350	-7.052	1.00	67.37	O
ATOM	4019	CB	ILE	D	723	3.581	25.930	-3.933	1.00	63.96	C
ATOM	4020	CG1	ILE	D	723	3.561	27.136	-2.992	1.00	64.48	C
ATOM	4021	CG2	ILE	D	723	4.765	26.014	-4.876	1.00	63.91	C
ATOM	4022	CD1	ILE	D	723	3.337	28.464	-3.695	1.00	64.40	C
ATOM	4023	N	ASP	D	724	2.476	23.621	-5.620	1.00	70.57	N
ATOM	4024	CA	ASP	D	724	2.639	22.643	-6.685	1.00	74.58	C
ATOM	4025	C	ASP	D	724	1.443	22.705	-7.628	1.00	76.51	C
ATOM	4026	O	ASP	D	724	1.563	22.438	-8.823	1.00	76.39	O
ATOM	4027	CB	ASP	D	724	2.786	21.230	-6.110	1.00	76.01	C
ATOM	4028	CG	ASP	D	724	3.246	20.221	-7.157	1.00	78.85	C
ATOM	4029	OD1	ASP	D	724	2.468	19.935	-8.099	1.00	79.06	O
ATOM	4030	OD2	ASP	D	724	4.390	19.723	-7.044	1.00	79.21	O

ATOM	4031	N	ALA	D	725	0.287	23.063	-7.083	1.00	79.26	
ATOM	4032	CA	ALA	D	725	-0.916	23.169	-7.888	1.00	82.39	N
ATOM	4033	C	ALA	D	725	-0.727	24.306	-8.876	1.00	85.18	C
ATOM	4034	O	ALA	D	725	-1.228	24.257	-9.996	1.00	85.62	C
ATOM	4035	CB	ALA	D	725	-2.115	23.442	-7.005	1.00	82.12	O
ATOM	4036	N	PHE	D	726	0.007	25.329	-8.453	1.00	88.76	N
ATOM	4037	CA	PHE	D	726	0.258	26.479	-9.307	1.00	92.49	C
ATOM	4038	C	PHE	D	726	1.285	26.121	-10.365	1.00	94.74	C
ATOM	4039	O	PHE	D	726	1.358	26.761	-11.412	1.00	95.57	O
ATOM	4040	CB	PHE	D	726	0.766	27.664	-8.488	1.00	93.45	C
ATOM	4041	CG	PHE	D	726	0.704	28.970	-9.224	1.00	94.42	C
ATOM	4042	CD1	PHE	D	726	-0.505	29.643	-9.366	1.00	94.75	C
ATOM	4043	CD2	PHE	D	726	1.846	29.512	-9.804	1.00	94.94	C
ATOM	4044	CE1	PHE	D	726	-0.577	30.839	-10.076	1.00	94.86	C
ATOM	4045	CE2	PHE	D	726	1.785	30.708	-10.517	1.00	95.15	C
ATOM	4046	CZ	PHE	D	726	0.571	31.372	-10.653	1.00	94.93	C
ATOM	4047	N	LYS	D	727	2.091	25.103	-10.085	1.00	97.62	N
ATOM	4048	CA	LYS	D	727	3.096	24.659	-11.040	1.00	100.84	C
ATOM	4049	C	LYS	D	727	2.390	23.922	-12.169	1.00	102.89	C
ATOM	4050	O	LYS	D	727	3.026	23.230	-12.962	1.00	103.74	O
ATOM	4051	CB	LYS	D	727	4.102	23.715	-10.378	1.00	100.90	C
ATOM	4052	CG	LYS	D	727	5.054	24.382	-9.402	1.00	102.65	C
ATOM	4053	CD	LYS	D	727	6.110	23.394	-8.915	1.00	103.29	C
ATOM	4054	CE	LYS	D	727	7.109	24.056	-7.977	1.00	103.25	C
ATOM	4055	NZ	LYS	D	727	8.168	23.108	-7.526	1.00	103.06	N
ATOM	4056	N	ASP	D	728	1.070	24.073	-12.229	1.00	105.08	N
ATOM	4057	CA	ASP	D	728	0.259	23.419	-13.251	1.00	106.79	C
ATOM	4058	C	ASP	D	728	-1.023	24.211	-13.512	1.00	107.51	C
ATOM	4059	O	ASP	D	728	-2.032	23.640	-13.923	1.00	107.48	O
ATOM	4060	CB	ASP	D	728	-0.113	22.002	-12.799	1.00	107.76	C
ATOM	4061	CG	ASP	D	728	1.090	21.189	-12.353	1.00	108.44	C
ATOM	4062	OD1	ASP	D	728	1.982	20.930	-13.188	1.00	109.36	O
ATOM	4063	OD2	ASP	D	728	1.142	20.810	-11.163	1.00	108.52	O
ATOM	4064	N	PHE	D	729	-0.983	25.518	-13.271	1.00	108.65	N
ATOM	4065	CA	PHE	D	729	-2.156	26.365	-13.475	1.00	110.01	C
ATOM	4066	C	PHE	D	729	-2.757	26.176	-14.865	1.00	110.93	C
ATOM	4067	O	PHE	D	729	-3.705	25.409	-15.036	1.00	111.27	O
ATOM	4068	CB	PHE	D	729	-1.796	27.838	-13.250	1.00	109.77	C
ATOM	4069	CG	PHE	D	729	-2.965	28.773	-13.382	1.00	109.64	C
ATOM	4070	CD1	PHE	D	729	-4.185	28.470	-12.786	1.00	109.79	C
ATOM	4071	CD2	PHE	D	729	-2.848	29.957	-14.097	1.00	109.96	C
ATOM	4072	CE1	PHE	D	729	-5.273	29.332	-12.903	1.00	109.64	C
ATOM	4073	CE2	PHE	D	729	-3.931	30.828	-14.219	1.00	110.09	C
ATOM	4074	CZ	PHE	D	729	-5.146	30.513	-13.621	1.00	109.50	C
ATOM	4075	N	VAL	D	730	-2.214	26.882	-15.852	1.00	111.95	N
ATOM	4076	CA	VAL	D	730	-2.696	26.766	-17.226	1.00	112.76	C
ATOM	4077	C	VAL	D	730	-1.608	26.079	-18.051	1.00	113.09	C
ATOM	4078	O	VAL	D	730	-1.622	26.110	-19.281	1.00	113.21	O
ATOM	4079	CB	VAL	D	730	-3.017	28.158	-17.838	1.00	113.05	C
ATOM	4080	CG1	VAL	D	730	-3.632	28.001	-19.222	1.00	113.29	C
ATOM	4081	CG2	VAL	D	730	-3.979	28.911	-16.939	1.00	112.88	C
ATOM	4082	N	VAL	D	731	-0.664	25.454	-17.352	1.00	113.55	N
ATOM	4083	CA	VAL	D	731	0.442	24.749	-17.992	1.00	113.65	C
ATOM	4084	C	VAL	D	731	0.119	23.263	-18.121	1.00	113.98	C
ATOM	4085	O	VAL	D	731	0.510	22.614	-19.090	1.00	114.23	O
ATOM	4086	CB	VAL	D	731	1.750	24.907	-17.178	1.00	113.39	C
ATOM	4087	CG1	VAL	D	731	2.888	24.165	-17.864	1.00	112.68	C
ATOM	4088	CG2	VAL	D	731	2.092	26.380	-17.029	1.00	113.00	C
ATOM	4089	N	ALA	D	732	-8.151	23.191	-20.446	1.00	112.99	N
ATOM	4090	CA	ALA	D	732	-8.781	23.296	-19.136	1.00	112.99	C
ATOM	4091	C	ALA	D	732	-10.158	23.942	-19.244	1.00	112.89	C
ATOM	4092	O	ALA	D	732	-11.068	23.624	-18.476	1.00	112.43	O

ATOM	4093	CB	ALA D 732	-7.895	24.105	-18.199	1.00113.07		C
TER	4094		ALA D 732						
HETATM	4095	SM	SM C 801	3.382	22.913	33.418	1.00	1.01	SM
HETATM	4096	SM	SM 802	12.310	41.103	1.729	1.00	46.23	SM
HETATM	4097	SM	SM B 803	34.722	60.629	-13.944	1.00	31.85	SM
HETATM	4098	SM	SM 804	23.452	43.030	48.466	1.00	29.22	SM
HETATM	4099	CA	CA C 805	10.432	45.369	22.564	1.00	13.16	CA
HETATM	4100	CA	CA A 806	35.803	63.939	33.610	1.00	29.63	CA
HETATM	4101	C	TRS 807	12.090	38.542	-7.133	1.00	65.56	C
HETATM	4102	C1	TRS 807	11.580	37.873	-5.842	1.00	65.64	C
HETATM	4103	C2	TRS 807	12.288	37.549	-8.116	1.00	66.45	C
HETATM	4104	C3	TRS 807	13.335	39.347	-6.731	1.00	65.43	C
HETATM	4105	N	TRS 807	11.058	39.471	-7.617	1.00	65.22	N
HETATM	4106	O1	TRS 807	12.450	36.961	-5.333	1.00	66.42	O
HETATM	4107	O2	TRS 807	13.351	36.656	-7.967	1.00	66.52	O
HETATM	4108	O3	TRS 807	13.974	40.049	-7.756	1.00	67.00	O
HETATM	4109	O	HOH 811	8.606	30.195	16.587	1.00	16.28	O
HETATM	4110	O	HOH 812	15.796	28.952	16.244	1.00	25.74	O
HETATM	4111	O	HOH 813	8.996	37.339	20.117	1.00	20.66	O
HETATM	4112	O	HOH 814	36.198	57.554	35.884	1.00	24.36	O
HETATM	4113	O	HOH 815	15.748	41.466	32.458	1.00	25.24	O
HETATM	4114	O	HOH 816	12.670	24.054	17.321	1.00	25.31	O
HETATM	4115	O	HOH 817	25.605	46.320	26.127	1.00	20.83	O
HETATM	4116	O	HOH 818	29.793	46.559	4.826	1.00	27.80	O
HETATM	4117	O	HOH 820	23.636	52.838	21.810	1.00	29.62	O
HETATM	4118	O	HOH 821	-5.477	35.005	4.087	1.00	38.64	O
HETATM	4119	O	HOH 822	9.263	22.777	37.596	1.00	30.45	O
HETATM	4120	O	HOH 823	18.824	65.144	45.840	1.00	28.91	O
HETATM	4121	O	HOH 824	41.938	49.349	29.824	1.00	36.33	O
HETATM	4122	O	HOH 825	14.204	35.302	12.661	1.00	26.09	O
HETATM	4123	O	HOH 826	5.154	28.366	35.565	1.00	27.41	O
HETATM	4124	O	HOH 827	17.420	47.026	21.845	1.00	27.81	O
HETATM	4125	O	HOH 828	29.550	40.761	7.680	1.00	35.99	O
HETATM	4126	O	HOH 829	28.265	45.994	11.706	1.00	32.91	O
HETATM	4127	O	HOH 830	12.962	31.889	47.898	1.00	42.72	O
HETATM	4128	O	HOH 831	16.808	31.403	5.277	1.00	43.76	O
HETATM	4129	O	HOH 832	32.631	57.885	29.873	1.00	37.74	O
HETATM	4130	O	HOH 833	2.250	27.901	24.836	1.00	43.13	O
HETATM	4131	O	HOH 834	29.990	44.971	9.328	1.00	31.81	O
HETATM	4132	O	HOH 835	-1.600	20.408	13.679	1.00	43.79	O
HETATM	4133	O	HOH 836	11.220	47.746	7.580	1.00	30.14	O
HETATM	4134	O	HOH 837	20.724	44.044	29.836	1.00	30.56	O
HETATM	4135	O	HOH 838	2.173	22.432	13.281	1.00	22.54	O
HETATM	4136	O	HOH 839	17.557	36.992	9.840	1.00	31.87	O
HETATM	4137	O	HOH 840	4.550	23.994	14.170	1.00	27.46	O
HETATM	4138	O	HOH 841	25.281	39.695	6.782	1.00	41.84	O
HETATM	4139	O	HOH 842	9.383	42.930	6.783	1.00	47.18	O
HETATM	4140	O	HOH 843	6.361	42.296	24.220	1.00	37.78	O
HETATM	4141	O	HOH 844	39.382	57.416	48.330	1.00	48.52	O
HETATM	4142	O	HOH 845	32.247	41.153	5.687	1.00	41.83	O
HETATM	4143	O	HOH 846	26.125	49.499	-8.757	1.00	30.11	O
HETATM	4144	O	HOH 847	0.290	30.022	23.939	1.00	50.00	O
HETATM	4145	O	HOH 848	8.376	42.541	9.479	1.00	43.80	O
HETATM	4146	O	HOH 849	19.958	38.970	5.910	1.00	46.78	O
HETATM	4147	O	HOH 850	22.162	39.657	21.182	1.00	33.34	O
HETATM	4148	O	HOH 851	8.230	39.327	21.959	1.00	33.00	O
HETATM	4149	O	HOH 852	23.921	60.495	19.790	1.00	35.77	O
HETATM	4150	O	HOH 853	6.817	22.716	16.090	1.00	27.55	O
HETATM	4151	O	HOH 854	34.018	56.401	28.113	1.00	34.61	O
HETATM	4152	O	HOH 856	27.581	39.513	34.077	1.00	42.95	O
HETATM	4153	O	HOH 857	-0.751	35.172	8.963	1.00	32.87	O

Table 4

HETATM 4154	O	HOH	859	32.429	60.073	-13.200	1.00	23.38	O
HETATM 4155	O	HOH	860	-7.012	24.072	13.604	1.00	34.71	O
HETATM 4156	O	HOH	861	39.074	63.063	33.662	1.00	58.21	O
HETATM 4157	O	HOH	862	21.440	42.915	27.714	1.00	22.95	O
HETATM 4158	O	HOH	864	37.581	61.643	36.898	1.00	39.63	O
HETATM 4159	O	HOH	865	0.685	21.698	15.184	1.00	28.66	O
HETATM 4160	O	HOH	866	22.254	64.084	49.555	1.00	44.64	O
HETATM 4161	O	HOH	867	35.264	53.161	23.559	1.00	43.70	O
HETATM 4162	O	HOH	868	6.596	44.632	15.034	1.00	59.30	O
HETATM 4163	O	HOH	869	22.825	56.530	-12.218	1.00	52.42	O
HETATM 4164	O	HOH	870	31.995	63.552	10.190	1.00	36.82	O
HETATM 4165	O	HOH	871	0.793	40.178	0.296	1.00	48.61	O
HETATM 4166	O	HOH	872	23.300	60.113	-7.891	1.00	49.86	O
HETATM 4167	O	HOH	873	11.054	40.390	18.125	1.00	48.30	O
HETATM 4168	O	HOH	874	13.243	21.325	37.798	1.00	32.31	O
HETATM 4169	O	HOH	875	-1.787	35.888	19.682	1.00	48.97	O
HETATM 4170	O	HOH	876	24.682	67.138	31.722	1.00	50.20	O
HETATM 4171	O	HOH	877	-1.307	36.711	41.965	1.00	50.56	O
HETATM 4172	O	HOH	878	-0.438	34.252	13.488	1.00	46.62	O
HETATM 4173	O	HOH	879	27.258	44.610	27.195	1.00	30.34	O
HETATM 4174	O	HOH	880	25.059	58.789	17.500	1.00	24.33	O
HETATM 4175	O	HOH	881	15.549	41.179	5.494	1.00	27.27	O
HETATM 4176	O	HOH	882	6.184	20.441	14.801	1.00	33.01	O
HETATM 4177	O	HOH	884	35.838	55.016	50.740	1.00	26.63	O
HETATM 4178	O	HOH	885	15.613	16.978	24.799	1.00	46.01	O
HETATM 4179	O	HOH	886	18.940	41.747	27.441	1.00	43.83	O
HETATM 4180	O	HOH	887	21.025	38.556	16.332	1.00	25.23	O
HETATM 4181	O	HOH	888	7.893	19.264	12.842	1.00	38.30	O
HETATM 4182	O	HOH	889	33.533	59.350	3.597	1.00	47.44	O
HETATM 4183	O	HOH	890	9.571	38.165	17.010	1.00	31.45	O
HETATM 4184	O	HOH	891	28.775	35.831	14.058	1.00	40.18	O
HETATM 4185	O	HOH	892	26.247	53.039	-17.253	1.00	46.82	O
HETATM 4186	O	HOH	893	32.415	61.335	17.452	1.00	38.77	O
HETATM 4187	O	HOH	894	23.460	45.149	24.354	1.00	26.05	O
HETATM 4188	O	HOH	895	3.991	24.967	37.153	1.00	42.80	O
HETATM 4189	O	HOH	896	19.794	41.241	31.566	1.00	50.67	O
HETATM 4190	O	HOH	897	19.768	25.882	9.816	1.00	44.44	O
HETATM 4191	O	HOH	898	27.528	39.803	14.126	1.00	40.31	O
HETATM 4192	O	HOH	899	15.999	61.065	33.673	1.00	40.88	O
HETATM 4193	O	HOH	900	15.539	19.636	28.723	1.00	47.29	O
HETATM 4194	O	HOH	901	38.498	54.225	8.757	1.00	30.13	O
HETATM 4195	O	HOH	902	32.463	48.114	54.923	1.00	38.66	O
HETATM 4196	O	HOH	903	-2.634	37.278	32.151	1.00	35.03	O
HETATM 4197	O	HOH	904	29.906	38.640	9.627	1.00	38.75	O
HETATM 4198	O	HOH	905	2.033	18.537	15.351	1.00	26.34	O
HETATM 4199	O	HOH	906	27.804	65.306	43.860	1.00	32.86	O
HETATM 4200	O	HOH	907	18.984	58.578	24.142	1.00	29.87	O
HETATM 4201	O	HOH	908	21.742	28.140	13.049	1.00	30.99	O
HETATM 4202	O	HOH	909	20.378	21.642	23.293	1.00	39.19	O
HETATM 4203	O	HOH	910	-6.019	39.244	2.216	1.00	34.77	O
HETATM 4204	O	HOH	911	17.624	66.255	35.268	1.00	51.56	O
HETATM 4205	O	HOH	912	3.763	20.127	13.752	1.00	30.70	O
HETATM 4206	O	HOH	913	3.362	27.348	33.755	1.00	23.36	O
HETATM 4207	O	HOH	914	24.559	28.693	12.265	1.00	43.09	O
HETATM 4208	O	HOH	915	36.824	59.818	47.570	1.00	30.39	O
HETATM 4209	O	HOH	916	22.924	22.342	40.503	1.00	44.39	O
HETATM 4210	O	HOH	917	4.702	18.252	11.499	1.00	32.74	O
HETATM 4211	O	HOH	918	3.467	17.089	17.532	1.00	39.40	O
HETATM 4212	O	HOH	919	29.413	49.496	-7.485	1.00	47.21	O
HETATM 4213	O	HOH	920	34.259	51.561	21.638	1.00	37.97	O
HETATM 4214	O	HOH	921	32.610	44.187	35.494	1.00	38.79	O
HETATM 4215	O	HOH	922	32.804	43.191	23.362	1.00	49.05	O
HETATM 4216	O	HOH	923	22.149	37.679	18.847	1.00	30.70	O

Table 6
FGF2 / FGFR1 / Heparin Ternary Complex

REMARK coordinates from simulated annealing refinement
 REMARK refinement resolution: 25.0 - 3.0 A
 REMARK starting r= 0.2340 free_r= 0.2850
 REMARK final r= 0.2310 free_r= 0.2893
 REMARK rmsd bonds= 0.008843 rmsd angles= 1.48262
 REMARK wa_initial= 5.38223 wa_dynamics= 5.24774 wa_final= 5.67599
 REMARK target= mlf md-method= cartesian annealing schedule= slowcool
 REMARK starting temperature= 2500 total md steps= 100 * 50
 REMARK sg= P4(1)2(1)2 a= 98.888 b= 98.888 c= 196.292 alpha= 90 beta= 90
 gamma= 90
 REMARK parameter file 1 : CNS_TOPPAR:protein_rep.param
 REMARK parameter file 2 : CNS_TOPPAR:dna-rna.param
 REMARK parameter file 3 : CNS_TOPPAR:water_rep.param
 REMARK parameter file 4 : CNS_TOPPAR:ion.param
 REMARK parameter file 5 : hexa.param
 REMARK molecular structure file: deca2_8.mtf
 REMARK input coordinates: deca2_8XB.pdb
 REMARK reflection file= 23bdec2.hklt
 REMARK ncs= restrain ncs file= ncs.def
 REMARK B-correction resolution: 6.0 - 3.0
 REMARK initial B-factor correction applied to fobs :
 REMARK B11= -10.663 B22= -10.663 B33= 21.325
 REMARK B12= 0.000 B13= 0.000 B23= 0.000
 REMARK B-factor correction applied to coordinate array B: 1.815
 REMARK bulk solvent: density level= 0.295271 e/A³, B-factor= 10 A²
 REMARK reflections with |Fobs|/sigma_F < 0.0 rejected
 REMARK reflections with |Fobs| > 10000 * rms(Fobs) rejected

REMARK theoretical total number of refl. in resol. range:	20197 (100.0 %)
REMARK number of unobserved reflections (no entry or F =0):	1892 (9.4 %)
REMARK number of reflections rejected:	0 (0.0 %)
REMARK total number of reflections used:	18305 (90.6 %)
REMARK number of reflections in working set:	17419 (86.2 %)
REMARK number of reflections in test set:	886 (4.4 %)

CRYST1 98.888 98.888 196.292 90.00 90.00 90.00 P 41 21 2
 REMARK FILENAME="deca2_8XBA_1.pdb"
 REMARK DATE:26-Jun-00 16:58:39 created by user: mohammad
 REMARK VERSION:0.5

Table 6

ATOM	1	CB	HIS	16	69.300	30.458	136.592	1.00	53.12
ATOM	2	CG	HIS	16	68.282	29.746	137.434	1.00	53.81
ATOM	3	CD2	HIS	16	68.024	29.802	138.763	1.00	53.82
ATOM	4	ND1	HIS	16	67.400	28.821	136.918	1.00	53.71
ATOM	5	CE1	HIS	16	66.646	28.337	137.890	1.00	52.39
ATOM	6	NE2	HIS	16	67.004	28.917	139.019	1.00	52.97
ATOM	7	C	HIS	16	69.392	28.671	134.893	1.00	53.57
ATOM	8	O	HIS	16	69.057	29.086	133.779	1.00	54.30
ATOM	9	N	HIS	16	71.340	30.243	135.155	1.00	53.53
ATOM	10	CA	HIS	16	70.228	29.513	135.838	1.00	53.43
ATOM	11	N	PHE	17	69.038	27.478	135.354	1.00	53.60
ATOM	12	CA	PHE	17	68.267	26.563	134.527	1.00	52.77
ATOM	13	CB	PHE	17	68.347	25.142	135.112	1.00	50.35
ATOM	14	CG	PHE	17	67.444	24.910	136.279	1.00	49.67
ATOM	15	CD1	PHE	17	66.154	24.417	136.087	1.00	48.74
ATOM	16	CD2	PHE	17	67.865	25.204	137.570	1.00	49.40
ATOM	17	CE1	PHE	17	65.293	24.221	137.164	1.00	47.80
ATOM	18	CE2	PHE	17	67.007	25.012	138.659	1.00	49.12
ATOM	19	CZ	PHE	17	65.718	24.519	138.451	1.00	47.95
ATOM	20	C	PHE	17	66.813	27.007	134.268	1.00	52.61
ATOM	21	O	PHE	17	66.198	26.567	133.294	1.00	53.57
ATOM	22	N	LYS	18	66.275	27.895	135.104	1.00	51.30
ATOM	23	CA	LYS	18	64.909	28.375	134.913	1.00	50.46
ATOM	24	CB	LYS	18	64.275	28.772	136.248	1.00	49.68
ATOM	25	C	LYS	18	64.821	29.555	133.936	1.00	50.17
ATOM	26	O	LYS	18	63.792	29.745	133.289	1.00	50.91
ATOM	27	N	ASP	19	65.889	30.344	133.822	1.00	48.70
ATOM	28	CA	ASP	19	65.888	31.486	132.910	1.00	47.03
ATOM	29	CB	ASP	19	67.043	32.421	133.234	1.00	48.46
ATOM	30	CG	ASP	19	67.278	32.545	134.709	1.00	50.22
ATOM	31	OD1	ASP	19	66.272	32.491	135.453	1.00	50.85
ATOM	32	OD2	ASP	19	68.455	32.701	135.120	1.00	51.12
ATOM	33	C	ASP	19	66.022	31.021	131.469	1.00	45.37
ATOM	34	O	ASP	19	66.485	29.913	131.210	1.00	46.46
ATOM	35	N	PRO	20	65.598	31.857	130.508	1.00	43.28
ATOM	36	CD	PRO	20	64.692	33.003	130.659	1.00	42.19
ATOM	37	CA	PRO	20	65.701	31.485	129.097	1.00	41.14
ATOM	38	CB	PRO	20	64.948	32.602	128.399	1.00	39.82
ATOM	39	CG	PRO	20	63.907	32.939	129.376	1.00	40.47
ATOM	40	C	PRO	20	67.160	31.434	128.676	1.00	39.83
ATOM	41	O	PRO	20	68.037	31.887	129.405	1.00	40.57
ATOM	42	N	LYS	21	67.415	30.867	127.506	1.00	37.64
ATOM	43	CA	LYS	21	68.766	30.776	126.980	1.00	34.69
ATOM	44	CB	LYS	21	69.352	29.384	127.208	1.00	33.35
ATOM	45	CG	LYS	21	69.626	29.032	128.645	1.00	33.21
ATOM	46	CD	LYS	21	70.484	27.781	128.733	1.00	33.06
ATOM	47	CE	LYS	21	70.796	27.418	130.183	1.00	34.73
ATOM	48	NZ	LYS	21	71.677	26.215	130.332	1.00	33.57
ATOM	49	C	LYS	21	68.742	31.041	125.490	1.00	33.43
ATOM	50	O	LYS	21	67.694	30.975	124.852	1.00	33.06
ATOM	51	N	ARG	22	69.897	31.370	124.937	1.00	32.25
ATOM	52	CA	ARG	22	70.004	31.581	123.506	1.00	31.08
ATOM	53	CB	ARG	22	70.687	32.911	123.203	1.00	32.57
ATOM	54	CG	ARG	22	69.732	34.071	122.957	1.00	34.47

ATOM	55	CD	ARG	22	70.516	35.341	122.616	1.00	36.93
ATOM	56	NE	ARG	22	70.829	36.139	123.798	1.00	38.72
ATOM	57	CZ	ARG	22	70.073	37.138	124.238	1.00	40.61
ATOM	58	NH1	ARG	22	68.965	37.475	123.587	1.00	40.39
ATOM	59	NH2	ARG	22	70.402	37.775	125.353	1.00	41.63
ATOM	60	C	ARG	22	70.890	30.421	123.081	1.00	28.84
ATOM	61	O	ARG	22	71.770	30.019	123.845	1.00	28.33
ATOM	62	N	LEU	23	70.658	29.856	121.900	1.00	25.80
ATOM	63	CA	LEU	23	71.496	28.743	121.464	1.00	23.35
ATOM	64	CB	LEU	23	70.652	27.528	121.105	1.00	20.30
ATOM	65	CG	LEU	23	70.055	26.819	122.315	1.00	17.64
ATOM	66	CD1	LEU	23	69.385	25.554	121.854	1.00	16.44
ATOM	67	CD2	LEU	23	71.145	26.494	123.314	1.00	17.15
ATOM	68	C	LEU	23	72.400	29.113	120.305	1.00	23.17
ATOM	69	O	LEU	23	71.997	29.062	119.151	1.00	23.67
ATOM	70	N	TYR	24	73.633	29.479	120.641	1.00	22.61
ATOM	71	CA	TYR	24	74.639	29.894	119.677	1.00	22.55
ATOM	72	CB	TYR	24	75.674	30.742	120.411	1.00	21.56
ATOM	73	CG	TYR	24	76.854	31.226	119.591	1.00	22.00
ATOM	74	CD1	TYR	24	78.021	30.475	119.496	1.00	20.66
ATOM	75	CE1	TYR	24	79.133	30.959	118.835	1.00	20.25
ATOM	76	CD2	TYR	24	76.835	32.477	118.981	1.00	22.00
ATOM	77	CE2	TYR	24	77.949	32.966	118.309	1.00	21.75
ATOM	78	CZ	TYR	24	79.092	32.202	118.246	1.00	21.10
ATOM	79	OH	TYR	24	80.206	32.694	117.607	1.00	22.44
ATOM	80	C	TYR	24	75.285	28.697	118.989	1.00	23.15
ATOM	81	O	TYR	24	76.038	27.946	119.605	1.00	23.41
ATOM	82	N	CYS	25	74.986	28.524	117.707	1.00	23.63
ATOM	83	CA	CYS	25	75.524	27.401	116.945	1.00	24.20
ATOM	84	CB	CYS	25	74.661	27.110	115.727	1.00	24.21
ATOM	85	SG	CYS	25	75.389	25.850	114.684	1.00	26.18
ATOM	86	C	CYS	25	76.944	27.630	116.473	1.00	23.32
ATOM	87	O	CYS	25	77.215	28.599	115.788	1.00	24.36
ATOM	88	N	LYS	26	77.832	26.709	116.814	1.00	22.03
ATOM	89	CA	LYS	26	79.234	26.804	116.434	1.00	21.70
ATOM	90	CB	LYS	26	79.948	25.505	116.809	1.00	19.91
ATOM	91	CG	LYS	26	81.443	25.475	116.512	1.00	19.56
ATOM	92	CD	LYS	26	82.119	24.288	117.228	1.00	20.95
ATOM	93	CE	LYS	26	83.649	24.402	117.274	1.00	19.82
ATOM	94	NZ	LYS	26	84.326	23.753	116.099	1.00	20.63
ATOM	95	C	LYS	26	79.455	27.086	114.954	1.00	22.52
ATOM	96	O	LYS	26	80.424	27.743	114.591	1.00	23.05
ATOM	97	N	ASN	27	78.559	26.591	114.104	1.00	22.60
ATOM	98	CA	ASN	27	78.712	26.775	112.668	1.00	22.64
ATOM	99	CB	ASN	27	77.983	25.661	111.909	1.00	21.87
ATOM	100	CG	ASN	27	78.352	25.622	110.431	1.00	21.71
ATOM	101	OD1	ASN	27	79.459	25.995	110.046	1.00	20.77
ATOM	102	ND2	ASN	27	77.433	25.148	109.603	1.00	20.65
ATOM	103	C	ASN	27	78.253	28.128	112.156	1.00	23.27
ATOM	104	O	ASN	27	77.146	28.273	111.647	1.00	24.11
ATOM	105	N	GLY	28	79.118	29.124	112.292	1.00	23.45
ATOM	106	CA	GLY	28	78.781	30.449	111.809	1.00	23.50
ATOM	107	C	GLY	28	78.349	31.457	112.849	1.00	22.32
ATOM	108	O	GLY	28	78.227	32.638	112.545	1.00	22.80
ATOM	109	N	GLY	29	78.113	31.011	114.072	1.00	21.39
ATOM	110	CA	GLY	29	77.698	31.935	115.107	1.00	20.23
ATOM	111	C	GLY	29	76.240	32.346	115.001	1.00	20.30

ATOM	112	O	GLY	29	75.852	33.405	115.468	1.00	20.85
ATOM	113	N	PHE	30	75.419	31.516	114.382	1.00	19.92
ATOM	114	CA	PHE	30	74.012	31.827	114.266	1.00	18.77
ATOM	115	CB	PHE	30	73.413	31.150	113.044	1.00	19.08
ATOM	116	CG	PHE	30	73.998	31.622	111.751	1.00	18.63
ATOM	117	CD1	PHE	30	75.294	31.279	111.398	1.00	18.35
ATOM	118	CD2	PHE	30	73.271	32.454	110.910	1.00	17.69
ATOM	119	CE1	PHE	30	75.855	31.755	110.240	1.00	18.97
ATOM	120	CE2	PHE	30	73.826	32.938	109.746	1.00	17.78
ATOM	121	CZ	PHE	30	75.117	32.591	109.408	1.00	18.74
ATOM	122	C	PHE	30	73.286	31.328	115.493	1.00	18.17
ATOM	123	O	PHE	30	73.516	30.208	115.926	1.00	18.61
ATOM	124	N	PHE	31	72.425	32.168	116.058	1.00	18.34
ATOM	125	CA	PHE	31	71.634	31.800	117.226	1.00	17.11
ATOM	126	CB	PHE	31	71.139	33.029	117.976	1.00	14.87
ATOM	127	CG	PHE	31	72.204	33.774	118.690	1.00	14.67
ATOM	128	CD1	PHE	31	72.730	33.286	119.887	1.00	14.59
ATOM	129	CD2	PHE	31	72.692	34.970	118.166	1.00	13.25
ATOM	130	CE1	PHE	31	73.727	33.973	120.554	1.00	13.47
ATOM	131	CE2	PHE	31	73.690	35.667	118.819	1.00	12.61
ATOM	132	CZ	PHE	31	74.212	35.167	120.016	1.00	13.50
ATOM	133	C	PHE	31	70.424	31.087	116.688	1.00	17.61
ATOM	134	O	PHE	31	69.829	31.546	115.719	1.00	18.12
ATOM	135	N	LEU	32	70.049	29.975	117.306	1.00	17.96
ATOM	136	CA	LEU	32	68.878	29.250	116.847	1.00	18.36
ATOM	137	CB	LEU	32	68.697	27.951	117.627	1.00	17.45
ATOM	138	CG	LEU	32	67.534	27.082	117.137	1.00	17.14
ATOM	139	CD1	LEU	32	67.753	26.717	115.686	1.00	16.23
ATOM	140	CD2	LEU	32	67.422	25.821	117.984	1.00	17.14
ATOM	141	C	LEU	32	67.672	30.148	117.062	1.00	18.83
ATOM	142	O	LEU	32	67.453	30.660	118.150	1.00	19.06
ATOM	143	N	ARG	33	66.886	30.330	116.017	1.00	19.84
ATOM	144	CA	ARG	33	65.721	31.185	116.084	1.00	21.62
ATOM	145	CB	ARG	33	65.930	32.375	115.158	1.00	19.43
ATOM	146	CG	ARG	33	64.697	33.208	114.964	1.00	17.69
ATOM	147	CD	ARG	33	65.026	34.490	114.237	1.00	16.18
ATOM	148	NE	ARG	33	65.443	34.278	112.861	1.00	13.18
ATOM	149	CZ	ARG	33	65.745	35.265	112.031	1.00	12.69
ATOM	150	NH1	ARG	33	65.676	36.511	112.455	1.00	9.98
ATOM	151	NH2	ARG	33	66.124	35.013	110.782	1.00	14.90
ATOM	152	C	ARG	33	64.395	30.529	115.724	1.00	23.39
ATOM	153	O	ARG	33	64.300	29.769	114.763	1.00	23.37
ATOM	154	N	ILE	34	63.368	30.846	116.499	1.00	24.83
ATOM	155	CA	ILE	34	62.043	30.326	116.239	1.00	27.05
ATOM	156	CB	ILE	34	61.503	29.555	117.423	1.00	26.29
ATOM	157	CG2	ILE	34	60.127	29.035	117.090	1.00	25.19
ATOM	158	CG1	ILE	34	62.453	28.415	117.771	1.00	25.48
ATOM	159	CD1	ILE	34	62.082	27.694	119.040	1.00	25.09
ATOM	160	C	ILE	34	61.115	31.504	115.959	1.00	29.23
ATOM	161	O	ILE	34	60.862	32.338	116.834	1.00	30.21
ATOM	162	N	HIS	35	60.628	31.572	114.725	1.00	30.40
ATOM	163	CA	HIS	35	59.727	32.630	114.301	1.00	30.70
ATOM	164	CB	HIS	35	59.619	32.664	112.775	1.00	31.64
ATOM	165	CG	HIS	35	60.916	32.944	112.082	1.00	33.81
ATOM	166	CD2	HIS	35	61.745	32.136	111.379	1.00	34.56
ATOM	167	ND1	HIS	35	61.517	34.184	112.104	1.00	34.42
ATOM	168	CE1	HIS	35	62.663	34.127	111.447	1.00	34.81

Table 6

ATOM	169	NE2	HIS	35	62.825	32.895	110.998	1.00	35.40
ATOM	170	C	HIS	35	58.353	32.356	114.874	1.00	30.61
ATOM	171	O	HIS	35	57.996	31.209	115.132	1.00	30.59
ATOM	172	N	PRO	36	57.560	33.411	115.084	1.00	30.75
ATOM	173	CD	PRO	36	57.903	34.836	114.961	1.00	30.69
ATOM	174	CA	PRO	36	56.216	33.247	115.628	1.00	30.14
ATOM	175	CB	PRO	36	55.726	34.683	115.757	1.00	29.29
ATOM	176	CG	PRO	36	56.990	35.460	115.966	1.00	29.66
ATOM	177	C	PRO	36	55.346	32.422	114.680	1.00	30.78
ATOM	178	O	PRO	36	54.359	31.823	115.096	1.00	29.83
ATOM	179	N	ASP	37	55.716	32.391	113.404	1.00	31.83
ATOM	180	CA	ASP	37	54.933	31.637	112.436	1.00	32.95
ATOM	181	CB	ASP	37	54.958	32.305	111.057	1.00	32.63
ATOM	182	CG	ASP	37	56.341	32.377	110.461	1.00	34.16
ATOM	183	OD1	ASP	37	57.108	31.398	110.570	1.00	34.89
ATOM	184	OD2	ASP	37	56.654	33.420	109.856	1.00	35.19
ATOM	185	C	ASP	37	55.351	30.181	112.305	1.00	33.57
ATOM	186	O	ASP	37	54.767	29.435	111.523	1.00	33.17
ATOM	187	N	GLY	38	56.362	29.775	113.065	1.00	33.49
ATOM	188	CA	GLY	38	56.798	28.394	113.000	1.00	32.49
ATOM	189	C	GLY	38	58.094	28.128	112.262	1.00	31.52
ATOM	190	O	GLY	38	58.666	27.056	112.399	1.00	30.69
ATOM	191	N	ARG	39	58.566	29.080	111.472	1.00	31.26
ATOM	192	CA	ARG	39	59.810	28.869	110.752	1.00	31.69
ATOM	193	CB	ARG	39	60.053	30.008	109.758	1.00	31.81
ATOM	194	CG	ARG	39	59.171	29.980	108.515	1.00	32.81
ATOM	195	CD	ARG	39	59.377	31.207	107.634	1.00	31.85
ATOM	196	NE	ARG	39	58.932	32.417	108.317	1.00	34.13
ATOM	197	CZ	ARG	39	59.088	33.652	107.847	1.00	35.53
ATOM	198	NH1	ARG	39	58.649	34.687	108.553	1.00	35.87
ATOM	199	NH2	ARG	39	59.681	33.860	106.678	1.00	35.37
ATOM	200	C	ARG	39	60.973	28.797	111.732	1.00	32.08
ATOM	201	O	ARG	39	60.947	29.431	112.784	1.00	32.13
ATOM	202	N	VAL	40	61.991	28.008	111.395	1.00	32.00
ATOM	203	CA	VAL	40	63.174	27.902	112.244	1.00	30.66
ATOM	204	CB	VAL	40	63.271	26.564	112.974	1.00	29.32
ATOM	205	CG1	VAL	40	64.335	26.668	114.031	1.00	30.19
ATOM	206	CG2	VAL	40	61.961	26.210	113.611	1.00	28.68
ATOM	207	C	VAL	40	64.443	28.083	111.422	1.00	29.72
ATOM	208	O	VAL	40	64.609	27.476	110.374	1.00	29.97
ATOM	209	N	ASP	41	65.335	28.930	111.912	1.00	28.45
ATOM	210	CA	ASP	41	66.579	29.216	111.226	1.00	27.57
ATOM	211	CB	ASP	41	66.326	30.164	110.058	1.00	26.38
ATOM	212	CG	ASP	41	65.642	31.437	110.487	1.00	25.63
ATOM	213	OD1	ASP	41	65.557	32.379	109.683	1.00	26.72
ATOM	214	OD2	ASP	41	65.181	31.496	111.633	1.00	26.67
ATOM	215	C	ASP	41	67.507	29.880	112.218	1.00	27.61
ATOM	216	O	ASP	41	67.252	29.853	113.410	1.00	29.10
ATOM	217	N	GLY	42	68.576	30.487	111.726	1.00	27.57
ATOM	218	CA	GLY	42	69.501	31.154	112.616	1.00	27.36
ATOM	219	C	GLY	42	69.678	32.631	112.314	1.00	27.75
ATOM	220	O	GLY	42	69.395	33.102	111.210	1.00	27.79
ATOM	221	N	VAL	43	70.142	33.363	113.319	1.00	27.36
ATOM	222	CA	VAL	43	70.406	34.787	113.199	1.00	28.43
ATOM	223	CB	VAL	43	69.276	35.663	113.756	1.00	27.62
ATOM	224	CG1	VAL	43	68.588	36.385	112.645	1.00	27.23

Table 6

ATOM	225	CG2	VAL	43	68.308	34.824	114.551	1.00	29.14
ATOM	226	C	VAL	43	71.610	35.090	114.048	1.00	29.73
ATOM	227	O	VAL	43	71.684	34.675	115.197	1.00	29.49
ATOM	228	N	ARG	44	72.557	35.823	113.494	1.00	32.24
ATOM	229	CA	ARG	44	73.723	36.175	114.270	1.00	34.28
ATOM	230	CB	ARG	44	74.868	36.543	113.347	1.00	35.61
ATOM	231	CG	ARG	44	75.389	35.358	112.587	1.00	38.73
ATOM	232	CD	ARG	44	76.387	35.790	111.550	1.00	40.80
ATOM	233	NE	ARG	44	77.205	34.667	111.133	1.00	43.26
ATOM	234	CZ	ARG	44	77.965	34.665	110.047	1.00	45.68
ATOM	235	NH1	ARG	44	78.005	35.734	109.267	1.00	46.13
ATOM	236	NH2	ARG	44	78.683	33.591	109.743	1.00	47.63
ATOM	237	C	ARG	44	73.423	37.320	115.230	1.00	34.49
ATOM	238	O	ARG	44	74.102	37.469	116.238	1.00	34.82
ATOM	239	N	GLU	45	72.401	38.116	114.936	1.00	34.24
ATOM	240	CA	GLU	45	72.063	39.234	115.806	1.00	34.89
ATOM	241	CB	GLU	45	71.032	40.136	115.135	1.00	36.45
ATOM	242	CG	GLU	45	71.511	40.716	113.831	1.00	38.67
ATOM	243	CD	GLU	45	72.789	41.508	113.990	1.00	40.75
ATOM	244	OE1	GLU	45	73.443	41.780	112.958	1.00	40.01
ATOM	245	OE2	GLU	45	73.137	41.861	115.142	1.00	43.18
ATOM	246	C	GLU	45	71.553	38.809	117.175	1.00	34.59
ATOM	247	O	GLU	45	70.457	38.273	117.308	1.00	35.36
ATOM	248	N	LYS	46	72.356	39.072	118.198	1.00	33.75
ATOM	249	CA	LYS	46	71.997	38.715	119.565	1.00	32.50
ATOM	250	CB	LYS	46	73.173	39.001	120.508	1.00	30.55
ATOM	251	CG	LYS	46	72.914	38.640	121.976	1.00	29.99
ATOM	252	CD	LYS	46	74.222	38.563	122.762	1.00	29.49
ATOM	253	CE	LYS	46	74.038	38.100	124.212	1.00	30.06
ATOM	254	NZ	LYS	46	73.784	39.231	125.169	1.00	30.34
ATOM	255	C	LYS	46	70.741	39.431	120.067	1.00	32.59
ATOM	256	O	LYS	46	70.109	38.991	121.028	1.00	32.11
ATOM	257	N	SER	47	70.374	40.524	119.409	1.00	32.29
ATOM	258	CA	SER	47	69.210	41.290	119.816	1.00	32.73
ATOM	259	CB	SER	47	69.417	42.755	119.468	1.00	31.79
ATOM	260	OG	SER	47	69.643	42.912	118.083	1.00	34.24
ATOM	261	C	SER	47	67.913	40.793	119.192	1.00	33.36
ATOM	262	O	SER	47	66.833	41.292	119.499	1.00	32.79
ATOM	263	N	ASP	48	68.014	39.806	118.313	1.00	34.12
ATOM	264	CA	ASP	48	66.830	39.255	117.665	1.00	34.15
ATOM	265	CB	ASP	48	67.200	37.982	116.916	1.00	34.62
ATOM	266	CG	ASP	48	66.148	37.573	115.922	1.00	36.63
ATOM	267	OD1	ASP	48	66.138	38.139	114.809	1.00	37.75
ATOM	268	OD2	ASP	48	65.324	36.696	116.256	1.00	37.73
ATOM	269	C	ASP	48	65.756	38.933	118.701	1.00	33.53
ATOM	270	O	ASP	48	66.033	38.311	119.722	1.00	35.73
ATOM	271	N	PRO	49	64.514	39.347	118.449	1.00	31.91
ATOM	272	CD	PRO	49	64.085	40.209	117.336	1.00	30.21
ATOM	273	CA	PRO	49	63.404	39.096	119.370	1.00	31.23
ATOM	274	CB	PRO	49	62.319	40.035	118.845	1.00	30.48
ATOM	275	CG	PRO	49	62.596	40.079	117.398	1.00	29.71
ATOM	276	C	PRO	49	62.926	37.638	119.456	1.00	31.07
ATOM	277	O	PRO	49	62.094	37.291	120.299	1.00	31.40
ATOM	278	N	HIS	50	63.462	36.781	118.596	1.00	30.80
ATOM	279	CA	HIS	50	63.033	35.392	118.575	1.00	29.86
ATOM	280	CB	HIS	50	62.436	35.068	117.216	1.00	28.95

Table 6

ATOM	281	CG	HIS	50	61.474	36.098	116.736	1.00	28.18
ATOM	282	CD2	HIS	50	61.543	36.966	115.701	1.00	27.42
ATOM	283	ND1	HIS	50	60.284	36.357	117.380	1.00	28.66
ATOM	284	CE1	HIS	50	59.660	37.341	116.760	1.00	28.45
ATOM	285	NE2	HIS	50	60.404	37.728	115.740	1.00	28.50
ATOM	286	C	HIS	50	64.108	34.374	118.875	1.00	29.05
ATOM	287	O	HIS	50	63.992	33.227	118.457	1.00	30.34
ATOM	288	N	ILE	51	65.158	34.767	119.580	1.00	26.57
ATOM	289	CA	ILE	51	66.172	33.794	119.882	1.00	25.39
ATOM	290	CB	ILE	51	67.546	34.274	119.458	1.00	23.16
ATOM	291	CG2	ILE	51	67.625	34.288	117.949	1.00	23.31
ATOM	292	CG1	ILE	51	67.824	35.655	120.035	1.00	22.31
ATOM	293	CD1	ILE	51	69.234	36.124	119.788	1.00	19.90
ATOM	294	C	ILE	51	66.179	33.368	121.343	1.00	26.50
ATOM	295	O	ILE	51	66.994	32.538	121.746	1.00	27.21
ATOM	296	N	LYS	52	65.263	33.914	122.137	1.00	26.83
ATOM	297	CA	LYS	52	65.179	33.530	123.546	1.00	28.13
ATOM	298	CB	LYS	52	64.509	34.613	124.390	1.00	28.54
ATOM	299	CG	LYS	52	65.446	35.713	124.844	1.00	30.65
ATOM	300	CD	LYS	52	64.666	37.003	125.105	1.00	33.21
ATOM	301	CE	LYS	52	65.556	38.156	125.566	1.00	32.45
ATOM	302	NZ	LYS	52	66.103	37.936	126.935	1.00	33.76
ATOM	303	C	LYS	52	64.383	32.240	123.653	1.00	28.24
ATOM	304	O	LYS	52	63.161	32.227	123.455	1.00	28.10
ATOM	305	N	LEU	53	65.092	31.159	123.972	1.00	27.84
ATOM	306	CA	LEU	53	64.492	29.835	124.095	1.00	26.95
ATOM	307	CB	LEU	53	65.350	28.802	123.374	1.00	26.01
ATOM	308	CG	LEU	53	65.980	29.249	122.066	1.00	24.73
ATOM	309	CD1	LEU	53	66.738	28.085	121.481	1.00	23.64
ATOM	310	CD2	LEU	53	64.907	29.757	121.120	1.00	23.87
ATOM	311	C	LEU	53	64.356	29.395	125.535	1.00	26.85
ATOM	312	O	LEU	53	65.211	29.695	126.369	1.00	27.66
ATOM	313	N	GLN	54	63.284	28.663	125.811	1.00	25.84
ATOM	314	CA	GLN	54	63.020	28.140	127.142	1.00	25.74
ATOM	315	CB	GLN	54	61.586	28.471	127.535	1.00	25.45
ATOM	316	CG	GLN	54	61.179	28.035	128.921	1.00	27.24
ATOM	317	CD	GLN	54	61.995	28.697	130.012	1.00	29.91
ATOM	318	OE1	GLN	54	62.193	29.911	130.016	1.00	28.79
ATOM	319	NE2	GLN	54	62.462	27.896	130.960	1.00	33.80
ATOM	320	C	GLN	54	63.221	26.626	127.070	1.00	25.53
ATOM	321	O	GLN	54	62.354	25.906	126.584	1.00	26.86
ATOM	322	N	LEU	55	64.375	26.142	127.516	1.00	24.71
ATOM	323	CA	LEU	55	64.627	24.710	127.481	1.00	24.05
ATOM	324	CB	LEU	55	66.127	24.421	127.413	1.00	22.59
ATOM	325	CG	LEU	55	66.902	25.117	126.306	1.00	22.36
ATOM	326	CD1	LEU	55	67.955	24.190	125.754	1.00	22.98
ATOM	327	CD2	LEU	55	65.968	25.493	125.204	1.00	23.14
ATOM	328	C	LEU	55	64.040	24.082	128.731	1.00	24.22
ATOM	329	O	LEU	55	64.347	24.503	129.852	1.00	24.57
ATOM	330	N	GLN	56	63.179	23.091	128.544	1.00	23.12
ATOM	331	CA	GLN	56	62.577	22.422	129.676	1.00	24.28
ATOM	332	CB	GLN	56	61.063	22.595	129.670	1.00	22.45
ATOM	333	CG	GLN	56	60.349	21.779	130.733	1.00	20.68
ATOM	334	CD	GLN	56	60.688	22.203	132.155	1.00	21.65
ATOM	335	OE1	GLN	56	60.452	23.345	132.552	1.00	20.04
ATOM	336	NE2	GLN	56	61.234	21.276	132.933	1.00	23.27

Table 6

ATOM	337	C	GLN	56	62.921	20.963	129.569	1.00	25.91
ATOM	338	O	GLN	56	62.989	20.426	128.468	1.00	28.11
ATOM	339	N	ALA	57	63.157	20.318	130.701	1.00	26.95
ATOM	340	CA	ALA	57	63.483	18.902	130.677	1.00	28.44
ATOM	341	CB	ALA	57	64.433	18.549	131.819	1.00	29.12
ATOM	342	C	ALA	57	62.185	18.150	130.830	1.00	29.10
ATOM	343	O	ALA	57	61.320	18.559	131.605	1.00	28.67
ATOM	344	N	GLU	58	62.029	17.070	130.072	1.00	29.83
ATOM	345	CA	GLU	58	60.820	16.274	130.181	1.00	30.65
ATOM	346	CB	GLU	58	60.346	15.824	128.811	1.00	31.00
ATOM	347	CG	GLU	58	58.857	15.539	128.757	1.00	32.60
ATOM	348	CD	GLU	58	58.027	16.723	129.207	1.00	33.58
ATOM	349	OE1	GLU	58	58.392	17.869	128.858	1.00	33.56
ATOM	350	OE2	GLU	58	57.008	16.506	129.901	1.00	35.63
ATOM	351	C	GLU	58	61.188	15.078	131.036	1.00	30.91
ATOM	352	O	GLU	58	60.333	14.344	131.515	1.00	30.95
ATOM	353	N	GLU	59	62.489	14.916	131.232	1.00	31.82
ATOM	354	CA	GLU	59	63.040	13.841	132.031	1.00	31.78
ATOM	355	CB	GLU	59	62.496	12.499	131.578	1.00	33.64
ATOM	356	CG	GLU	59	63.031	12.038	130.260	1.00	36.93
ATOM	357	CD	GLU	59	62.664	10.602	129.993	1.00	39.85
ATOM	358	OE1	GLU	59	61.461	10.331	129.790	1.00	42.02
ATOM	359	OE2	GLU	59	63.571	9.741	129.999	1.00	41.11
ATOM	360	C	GLU	59	64.529	13.873	131.821	1.00	30.93
ATOM	361	O	GLU	59	65.005	14.502	130.880	1.00	31.63
ATOM	362	N	ARG	60	65.259	13.186	132.688	1.00	29.47
ATOM	363	CA	ARG	60	66.710	13.123	132.609	1.00	28.68
ATOM	364	CB	ARG	60	67.196	11.887	133.344	1.00	30.06
ATOM	365	CG	ARG	60	68.340	12.140	134.272	1.00	34.02
ATOM	366	CD	ARG	60	68.351	11.091	135.363	1.00	38.00
ATOM	367	NE	ARG	60	68.988	9.853	134.937	1.00	41.17
ATOM	368	CZ	ARG	60	70.275	9.754	134.610	1.00	43.17
ATOM	369	NH1	ARG	60	71.064	10.819	134.653	1.00	43.52
ATOM	370	NH2	ARG	60	70.787	8.579	134.266	1.00	45.60
ATOM	371	C	ARG	60	67.236	13.083	131.181	1.00	27.56
ATOM	372	O	ARG	60	66.915	12.163	130.420	1.00	26.74
ATOM	373	N	GLY	61	68.036	14.093	130.834	1.00	25.42
ATOM	374	CA	GLY	61	68.650	14.179	129.521	1.00	23.18
ATOM	375	C	GLY	61	67.769	14.499	128.336	1.00	22.45
ATOM	376	O	GLY	61	68.255	14.571	127.206	1.00	22.39
ATOM	377	N	VAL	62	66.480	14.696	128.576	1.00	21.70
ATOM	378	CA	VAL	62	65.559	14.991	127.488	1.00	21.36
ATOM	379	CB	VAL	62	64.467	13.948	127.390	1.00	21.25
ATOM	380	CG1	VAL	62	63.545	14.300	126.255	1.00	20.20
ATOM	381	CG2	VAL	62	65.086	12.578	127.184	1.00	22.19
ATOM	382	C	VAL	62	64.891	16.330	127.660	1.00	21.42
ATOM	383	O	VAL	62	64.329	16.625	128.718	1.00	21.01
ATOM	384	N	VAL	63	64.922	17.131	126.607	1.00	21.21
ATOM	385	CA	VAL	63	64.331	18.451	126.684	1.00	22.02
ATOM	386	CB	VAL	63	65.419	19.536	126.680	1.00	21.49
ATOM	387	CG1	VAL	63	66.481	19.213	127.704	1.00	21.73
ATOM	388	CG2	VAL	63	66.026	19.650	125.290	1.00	20.18
ATOM	389	C	VAL	63	63.387	18.808	125.553	1.00	23.18
ATOM	390	O	VAL	63	63.413	18.210	124.477	1.00	23.67
ATOM	391	N	SER	64	62.550	19.798	125.827	1.00	23.91
ATOM	392	CA	SER	64	61.649	20.350	124.839	1.00	25.35

Table 6

ATOM	393	CB	SER	64	60.254	20.585	125.427	1.00	25.45
ATOM	394	OG	SER	64	60.157	21.858	126.047	1.00	25.74
ATOM	395	C	SER	64	62.380	21.686	124.670	1.00	26.31
ATOM	396	O	SER	64	63.103	22.105	125.584	1.00	26.97
ATOM	397	N	ILE	65	62.243	22.333	123.516	1.00	25.31
ATOM	398	CA	ILE	65	62.889	23.624	123.302	1.00	23.48
ATOM	399	CB	ILE	65	63.965	23.536	122.239	1.00	21.26
ATOM	400	CG2	ILE	65	64.493	24.913	121.921	1.00	20.99
ATOM	401	CG1	ILE	65	65.087	22.637	122.730	1.00	19.95
ATOM	402	CD1	ILE	65	66.175	22.427	121.710	1.00	18.86
ATOM	403	C	ILE	65	61.793	24.551	122.833	1.00	24.23
ATOM	404	O	ILE	65	61.307	24.432	121.717	1.00	26.34
ATOM	405	N	LYS	66	61.398	25.476	123.688	1.00	23.45
ATOM	406	CA	LYS	66	60.315	26.376	123.347	1.00	24.16
ATOM	407	CB	LYS	66	59.308	26.366	124.490	1.00	25.18
ATOM	408	CG	LYS	66	58.083	27.234	124.309	1.00	26.80
ATOM	409	CD	LYS	66	57.169	27.059	125.526	1.00	28.71
ATOM	410	CE	LYS	66	56.044	28.085	125.597	1.00	29.36
ATOM	411	NZ	LYS	66	55.434	28.077	126.956	1.00	30.03
ATOM	412	C	LYS	66	60.743	27.801	123.049	1.00	24.99
ATOM	413	O	LYS	66	61.398	28.451	123.861	1.00	26.36
ATOM	414	N	GLY	67	60.383	28.288	121.871	1.00	24.39
ATOM	415	CA	GLY	67	60.721	29.649	121.535	1.00	23.66
ATOM	416	C	GLY	67	59.802	30.486	122.394	1.00	23.71
ATOM	417	O	GLY	67	58.590	30.370	122.280	1.00	23.31
ATOM	418	N	VAL	68	60.363	31.325	123.253	1.00	24.43
ATOM	419	CA	VAL	68	59.538	32.137	124.143	1.00	25.58
ATOM	420	CB	VAL	68	60.412	32.961	125.102	1.00	24.89
ATOM	421	CG1	VAL	68	59.547	33.906	125.913	1.00	24.50
ATOM	422	CG2	VAL	68	61.163	32.038	126.026	1.00	23.51
ATOM	423	C	VAL	68	58.569	33.075	123.425	1.00	27.13
ATOM	424	O	VAL	68	57.374	33.093	123.725	1.00	27.43
ATOM	425	N	SER	69	59.097	33.845	122.480	1.00	27.71
ATOM	426	CA	SER	69	58.318	34.802	121.706	1.00	27.80
ATOM	427	CB	SER	69	59.279	35.657	120.871	1.00	26.55
ATOM	428	OG	SER	69	58.652	36.153	119.712	1.00	23.62
ATOM	429	C	SER	69	57.293	34.135	120.791	1.00	28.43
ATOM	430	O	SER	69	56.116	34.493	120.784	1.00	27.80
ATOM	431	N	ALA	70	57.754	33.161	120.019	1.00	29.44
ATOM	432	CA	ALA	70	56.890	32.455	119.085	1.00	30.39
ATOM	433	CB	ALA	70	57.739	31.672	118.090	1.00	30.34
ATOM	434	C	ALA	70	55.911	31.526	119.793	1.00	30.53
ATOM	435	O	ALA	70	54.949	31.043	119.197	1.00	30.39
ATOM	436	N	ASN	71	56.147	31.285	121.071	1.00	30.77
ATOM	437	CA	ASN	71	55.271	30.407	121.817	1.00	32.78
ATOM	438	CB	ASN	71	53.970	31.137	122.123	1.00	32.63
ATOM	439	CG	ASN	71	53.257	30.571	123.330	1.00	33.86
ATOM	440	OD1	ASN	71	53.857	30.378	124.386	1.00	35.51
ATOM	441	ND2	ASN	71	51.968	30.315	123.186	1.00	34.15
ATOM	442	C	ASN	71	54.996	29.129	121.008	1.00	33.89
ATOM	443	O	ASN	71	53.848	28.735	120.803	1.00	33.35
ATOM	444	N	ARG	72	56.074	28.502	120.543	1.00	34.56
ATOM	445	CA	ARG	72	56.014	27.271	119.764	1.00	34.30
ATOM	446	CB	ARG	72	56.245	27.545	118.280	1.00	33.36
ATOM	447	CG	ARG	72	55.174	28.321	117.553	1.00	33.71
ATOM	448	CD	ARG	72	55.635	28.572	116.110	1.00	34.74

Table 6

ATOM	449	NE	ARG	72	54.624	29.232	115.290	1.00	35.27
ATOM	450	CZ	ARG	72	53.545	28.632	114.798	1.00	33.89
ATOM	451	NH1	ARG	72	53.327	27.349	115.028	1.00	33.02
ATOM	452	NH2	ARG	72	52.670	29.324	114.089	1.00	34.07
ATOM	453	C	ARG	72	57.138	26.369	120.242	1.00	34.85
ATOM	454	O	ARG	72	58.046	26.819	120.934	1.00	35.82
ATOM	455	N	TYR	73	57.092	25.102	119.846	1.00	34.88
ATOM	456	CA	TYR	73	58.120	24.149	120.233	1.00	33.16
ATOM	457	CB	TYR	73	57.488	22.981	120.971	1.00	29.48
ATOM	458	CG	TYR	73	56.795	23.390	122.244	1.00	27.00
ATOM	459	CD1	TYR	73	55.509	23.920	122.224	1.00	25.62
ATOM	460	CE1	TYR	73	54.878	24.301	123.396	1.00	23.39
ATOM	461	CD2	TYR	73	57.432	23.258	123.474	1.00	25.71
ATOM	462	CE2	TYR	73	56.812	23.640	124.645	1.00	23.18
ATOM	463	CZ	TYR	73	55.537	24.158	124.601	1.00	22.75
ATOM	464	OH	TYR	73	54.923	24.525	125.770	1.00	22.37
ATOM	465	C	TYR	73	58.909	23.638	119.045	1.00	33.61
ATOM	466	O	TYR	73	58.339	23.297	118.019	1.00	34.53
ATOM	467	N	LEU	74	60.225	23.595	119.184	1.00	33.83
ATOM	468	CA	LEU	74	61.077	23.108	118.113	1.00	35.21
ATOM	469	CB	LEU	74	62.538	23.322	118.471	1.00	32.63
ATOM	470	CG	LEU	74	63.465	22.385	117.715	1.00	30.54
ATOM	471	CD1	LEU	74	63.375	22.702	116.241	1.00	30.96
ATOM	472	CD2	LEU	74	64.871	22.523	118.226	1.00	29.71
ATOM	473	C	LEU	74	60.835	21.621	117.924	1.00	37.36
ATOM	474	O	LEU	74	61.081	20.837	118.839	1.00	39.11
ATOM	475	N	ALA	75	60.358	21.231	116.747	1.00	38.42
ATOM	476	CA	ALA	75	60.097	19.825	116.460	1.00	39.22
ATOM	477	CB	ALA	75	58.609	19.583	116.394	1.00	37.95
ATOM	478	C	ALA	75	60.751	19.431	115.146	1.00	40.58
ATOM	479	O	ALA	75	60.800	20.231	114.208	1.00	41.93
ATOM	480	N	MET	76	61.268	18.207	115.084	1.00	41.48
ATOM	481	CA	MET	76	61.908	17.717	113.868	1.00	42.71
ATOM	482	CB	MET	76	63.269	17.129	114.179	1.00	41.17
ATOM	483	CG	MET	76	64.039	16.797	112.949	1.00	40.91
ATOM	484	SD	MET	76	65.732	16.444	113.338	1.00	43.31
ATOM	485	CE	MET	76	65.586	14.747	113.794	1.00	43.79
ATOM	486	C	MET	76	61.037	16.649	113.222	1.00	44.35
ATOM	487	O	MET	76	60.809	15.591	113.799	1.00	44.28
ATOM	488	N	LYS	77	60.554	16.941	112.019	1.00	45.83
ATOM	489	CA	LYS	77	59.697	16.029	111.280	1.00	47.28
ATOM	490	CB	LYS	77	59.056	16.770	110.112	1.00	47.05
ATOM	491	CG	LYS	77	58.522	18.160	110.444	1.00	45.60
ATOM	492	CD	LYS	77	57.128	18.135	111.039	1.00	44.56
ATOM	493	CE	LYS	77	57.155	17.746	112.499	1.00	44.94
ATOM	494	NZ	LYS	77	55.799	17.813	113.127	1.00	45.37
ATOM	495	C	LYS	77	60.496	14.843	110.749	1.00	49.12
ATOM	496	O	LYS	77	61.725	14.839	110.805	1.00	48.68
ATOM	497	N	GLU	78	59.793	13.846	110.211	1.00	51.45
ATOM	498	CA	GLU	78	60.444	12.643	109.690	1.00	53.04
ATOM	499	CB	GLU	78	59.407	11.583	109.288	1.00	54.65
ATOM	500	CG	GLU	78	58.566	11.923	108.071	1.00	58.25
ATOM	501	CD	GLU	78	57.760	13.198	108.258	1.00	61.11
ATOM	502	OE1	GLU	78	57.160	13.370	109.350	1.00	62.28
ATOM	503	OE2	GLU	78	57.719	14.022	107.313	1.00	61.51
ATOM	504	C	GLU	78	61.425	12.855	108.539	1.00	52.66

Table 6

ATOM	505	O	GLU	78	62.398	12.115	108.432	1.00	53.96
ATOM	506	N	ASP	79	61.195	13.836	107.671	1.00	51.02
ATOM	507	CA	ASP	79	62.141	14.049	106.579	1.00	49.50
ATOM	508	CB	ASP	79	61.517	14.883	105.461	1.00	49.01
ATOM	509	CG	ASP	79	60.976	16.197	105.951	1.00	48.61
ATOM	510	OD1	ASP	79	60.637	17.053	105.106	1.00	47.79
ATOM	511	OD2	ASP	79	60.885	16.368	107.182	1.00	48.70
ATOM	512	C	ASP	79	63.414	14.722	107.089	1.00	48.99
ATOM	513	O	ASP	79	64.396	14.861	106.356	1.00	48.58
ATOM	514	N	GLY	80	63.389	15.132	108.355	1.00	48.23
ATOM	515	CA	GLY	80	64.549	15.764	108.953	1.00	46.48
ATOM	516	C	GLY	80	64.545	17.274	108.901	1.00	44.84
ATOM	517	O	GLY	80	65.590	17.900	109.054	1.00	44.26
ATOM	518	N	ARG	81	63.382	17.871	108.679	1.00	44.21
ATOM	519	CA	ARG	81	63.302	19.323	108.624	1.00	43.88
ATOM	520	CB	ARG	81	62.362	19.781	107.507	1.00	45.36
ATOM	521	CG	ARG	81	60.896	19.485	107.762	1.00	49.01
ATOM	522	CD	ARG	81	60.009	19.877	106.574	1.00	50.98
ATOM	523	NE	ARG	81	58.581	19.778	106.901	1.00	53.79
ATOM	524	CZ	ARG	81	57.880	18.643	106.965	1.00	55.03
ATOM	525	NH1	ARG	81	58.455	17.471	106.718	1.00	55.84
ATOM	526	NH2	ARG	81	56.593	18.676	107.294	1.00	55.29
ATOM	527	C	ARG	81	62.815	19.841	109.965	1.00	42.86
ATOM	528	O	ARG	81	62.109	19.139	110.693	1.00	42.39
ATOM	529	N	LEU	82	63.207	21.068	110.290	1.00	41.62
ATOM	530	CA	LEU	82	62.827	21.686	111.551	1.00	40.80
ATOM	531	CB	LEU	82	63.985	22.512	112.111	1.00	40.02
ATOM	532	CG	LEU	82	65.360	21.870	112.203	1.00	39.83
ATOM	533	CD1	LEU	82	66.278	22.836	112.890	1.00	40.26
ATOM	534	CD2	LEU	82	65.294	20.567	112.976	1.00	40.58
ATOM	535	C	LEU	82	61.628	22.599	111.388	1.00	40.36
ATOM	536	O	LEU	82	61.335	23.064	110.292	1.00	40.36
ATOM	537	N	LEU	83	60.957	22.862	112.501	1.00	39.84
ATOM	538	CA	LEU	83	59.800	23.739	112.536	1.00	40.98
ATOM	539	CB	LEU	83	58.700	23.201	111.618	1.00	40.74
ATOM	540	CG	LEU	83	58.065	21.838	111.904	1.00	40.46
ATOM	541	CD1	LEU	83	57.117	21.904	113.096	1.00	39.09
ATOM	542	CD2	LEU	83	57.299	21.417	110.677	1.00	40.49
ATOM	543	C	LEU	83	59.319	23.791	113.980	1.00	41.84
ATOM	544	O	LEU	83	59.698	22.952	114.787	1.00	42.18
ATOM	545	N	ALA	84	58.490	24.764	114.320	1.00	42.49
ATOM	546	CA	ALA	84	58.021	24.841	115.689	1.00	44.12
ATOM	547	CB	ALA	84	58.524	26.109	116.332	1.00	44.63
ATOM	548	C	ALA	84	56.506	24.738	115.812	1.00	45.19
ATOM	549	O	ALA	84	55.766	25.592	115.327	1.00	45.45
ATOM	550	N	SER	85	56.060	23.674	116.470	1.00	45.94
ATOM	551	CA	SER	85	54.643	23.411	116.679	1.00	46.93
ATOM	552	CB	SER	85	54.452	21.952	117.092	1.00	47.72
ATOM	553	OG	SER	85	53.104	21.693	117.446	1.00	49.98
ATOM	554	C	SER	85	54.054	24.329	117.746	1.00	47.26
ATOM	555	O	SER	85	54.763	24.775	118.642	1.00	48.27
ATOM	556	N	LYS	86	52.757	24.607	117.654	1.00	47.10
ATOM	557	CA	LYS	86	52.108	25.478	118.624	1.00	46.39
ATOM	558	CB	LYS	86	50.780	25.993	118.070	1.00	46.39
ATOM	559	CG	LYS	86	50.321	27.340	118.643	1.00	46.15
ATOM	560	CD	LYS	86	51.221	28.504	118.183	1.00	46.01

Table 6

ATOM	561	CE	LYS	86	50.611	29.888	118.462	1.00	43.88
ATOM	562	NZ	LYS	86	50.529	30.273	119.903	1.00	42.01
ATOM	563	C	LYS	86	51.864	24.689	119.902	1.00	46.17
ATOM	564	O	LYS	86	51.822	25.250	120.997	1.00	46.38
ATOM	565	N	SER	87	51.702	23.380	119.752	1.00	45.54
ATOM	566	CA	SER	87	51.470	22.500	120.886	1.00	44.56
ATOM	567	CB	SER	87	50.066	21.899	120.825	1.00	45.04
ATOM	568	OG	SER	87	49.925	21.045	119.706	1.00	45.18
ATOM	569	C	SER	87	52.502	21.390	120.842	1.00	43.71
ATOM	570	O	SER	87	53.014	21.054	119.783	1.00	42.09
ATOM	571	N	VAL	88	52.799	20.814	121.997	1.00	43.56
ATOM	572	CA	VAL	88	53.796	19.769	122.068	1.00	43.63
ATOM	573	CB	VAL	88	54.184	19.513	123.528	1.00	42.66
ATOM	574	CG1	VAL	88	55.281	18.477	123.602	1.00	42.15
ATOM	575	CG2	VAL	88	54.634	20.807	124.167	1.00	41.54
ATOM	576	C	VAL	88	53.357	18.461	121.422	1.00	43.94
ATOM	577	O	VAL	88	52.185	18.107	121.455	1.00	43.53
ATOM	578	N	THR	89	54.318	17.765	120.816	1.00	44.55
ATOM	579	CA	THR	89	54.099	16.471	120.170	1.00	44.50
ATOM	580	CB	THR	89	53.913	16.585	118.633	1.00	44.01
ATOM	581	OG1	THR	89	55.144	16.271	117.973	1.00	43.88
ATOM	582	CG2	THR	89	53.496	17.982	118.240	1.00	43.75
ATOM	583	C	THR	89	55.356	15.647	120.446	1.00	45.06
ATOM	584	O	THR	89	56.395	16.193	120.823	1.00	45.26
ATOM	585	N	ASP	90	55.272	14.338	120.249	1.00	45.27
ATOM	586	CA	ASP	90	56.410	13.466	120.522	1.00	46.21
ATOM	587	CB	ASP	90	56.028	12.033	120.226	1.00	47.52
ATOM	588	CG	ASP	90	55.814	11.808	118.763	1.00	49.35
ATOM	589	OD1	ASP	90	55.095	12.628	118.155	1.00	50.55
ATOM	590	OD2	ASP	90	56.363	10.826	118.220	1.00	50.71
ATOM	591	C	ASP	90	57.654	13.809	119.715	1.00	46.06
ATOM	592	O	ASP	90	58.696	13.179	119.887	1.00	46.36
ATOM	593	N	GLU	91	57.547	14.808	118.844	1.00	45.13
ATOM	594	CA	GLU	91	58.662	15.210	117.996	1.00	43.57
ATOM	595	CB	GLU	91	58.169	15.435	116.566	1.00	44.39
ATOM	596	CG	GLU	91	57.638	14.181	115.872	1.00	43.82
ATOM	597	CD	GLU	91	56.971	14.484	114.543	1.00	43.03
ATOM	598	OE1	GLU	91	55.925	15.170	114.547	1.00	41.30
ATOM	599	OE2	GLU	91	57.495	14.037	113.499	1.00	42.95
ATOM	600	C	GLU	91	59.342	16.466	118.492	1.00	42.39
ATOM	601	O	GLU	91	60.227	17.001	117.830	1.00	42.51
ATOM	602	N	CYS	92	58.923	16.936	119.659	1.00	40.94
ATOM	603	CA	CYS	92	59.488	18.143	120.243	1.00	38.73
ATOM	604	CB	CYS	92	58.368	19.010	120.809	1.00	38.75
ATOM	605	SG	CYS	92	57.090	19.469	119.614	1.00	38.94
ATOM	606	C	CYS	92	60.472	17.819	121.353	1.00	37.23
ATOM	607	O	CYS	92	60.824	18.691	122.145	1.00	38.15
ATOM	608	N	PHE	93	60.920	16.569	121.405	1.00	34.63
ATOM	609	CA	PHE	93	61.849	16.135	122.440	1.00	31.83
ATOM	610	CB	PHE	93	61.211	15.016	123.245	1.00	29.72
ATOM	611	CG	PHE	93	60.004	15.465	123.981	1.00	28.43
ATOM	612	CD1	PHE	93	60.119	16.385	125.010	1.00	27.56
ATOM	613	CD2	PHE	93	58.743	15.071	123.577	1.00	29.45
ATOM	614	CE1	PHE	93	58.998	16.919	125.623	1.00	27.01
ATOM	615	CE2	PHE	93	57.609	15.601	124.185	1.00	29.35
ATOM	616	CZ	PHE	93	57.741	16.530	125.210	1.00	27.87

Table 6

ATOM	617	C	PHE	93	63.192	15.719	121.894	1.00	30.86
ATOM	618	O	PHE	93	63.277	15.007	120.899	1.00	31.92
ATOM	619	N	PHE	94	64.250	16.173	122.556	1.00	28.82
ATOM	620	CA	PHE	94	65.600	15.883	122.101	1.00	26.91
ATOM	621	CB	PHE	94	66.194	17.127	121.430	1.00	23.96
ATOM	622	CG	PHE	94	65.297	17.758	120.413	1.00	19.13
ATOM	623	CD1	PHE	94	65.571	17.636	119.056	1.00	19.27
ATOM	624	CD2	PHE	94	64.168	18.466	120.810	1.00	17.15
ATOM	625	CE1	PHE	94	64.728	18.214	118.097	1.00	18.35
ATOM	626	CE2	PHE	94	63.323	19.043	119.874	1.00	16.33
ATOM	627	CZ	PHE	94	63.601	18.919	118.509	1.00	16.51
ATOM	628	C	PHE	94	66.508	15.486	123.239	1.00	27.27
ATOM	629	O	PHE	94	66.255	15.840	124.392	1.00	28.75
ATOM	630	N	PHE	95	67.565	14.750	122.918	1.00	26.55
ATOM	631	CA	PHE	95	68.525	14.365	123.938	1.00	27.50
ATOM	632	CB	PHE	95	69.277	13.085	123.576	1.00	29.60
ATOM	633	CG	PHE	95	68.417	11.870	123.536	1.00	32.07
ATOM	634	CD1	PHE	95	67.912	11.399	122.330	1.00	33.27
ATOM	635	CD2	PHE	95	68.062	11.222	124.711	1.00	33.12
ATOM	636	CE1	PHE	95	67.064	10.306	122.294	1.00	33.11
ATOM	637	CE2	PHE	95	67.215	10.131	124.687	1.00	33.28
ATOM	638	CZ	PHE	95	66.715	9.672	123.473	1.00	33.45
ATOM	639	C	PHE	95	69.529	15.490	124.021	1.00	27.10
ATOM	640	O	PHE	95	70.296	15.722	123.085	1.00	27.95
ATOM	641	N	GLU	96	69.519	16.209	125.131	1.00	25.84
ATOM	642	CA	GLU	96	70.471	17.287	125.287	1.00	24.93
ATOM	643	CB	GLU	96	69.956	18.367	126.236	1.00	24.70
ATOM	644	CG	GLU	96	70.903	19.538	126.346	1.00	23.98
ATOM	645	CD	GLU	96	70.418	20.572	127.321	1.00	26.19
ATOM	646	OE1	GLU	96	70.168	20.199	128.490	1.00	27.67
ATOM	647	OE2	GLU	96	70.290	21.754	126.926	1.00	25.82
ATOM	648	C	GLU	96	71.722	16.681	125.865	1.00	24.41
ATOM	649	O	GLU	96	71.684	16.038	126.916	1.00	24.25
ATOM	650	N	ARG	97	72.833	16.881	125.177	1.00	24.39
ATOM	651	CA	ARG	97	74.077	16.334	125.657	1.00	25.15
ATOM	652	CB	ARG	97	74.467	15.097	124.858	1.00	29.19
ATOM	653	CG	ARG	97	75.774	14.467	125.319	1.00	32.87
ATOM	654	CD	ARG	97	76.419	13.730	124.172	1.00	36.29
ATOM	655	NE	ARG	97	77.556	12.929	124.599	1.00	40.01
ATOM	656	CZ	ARG	97	77.479	11.948	125.492	1.00	42.01
ATOM	657	NH1	ARG	97	76.315	11.653	126.058	1.00	42.21
ATOM	658	NH2	ARG	97	78.564	11.251	125.809	1.00	42.97
ATOM	659	C	ARG	97	75.217	17.312	125.608	1.00	23.59
ATOM	660	O	ARG	97	75.457	17.962	124.599	1.00	23.46
ATOM	661	N	LEU	98	75.919	17.410	126.724	1.00	22.64
ATOM	662	CA	LEU	98	77.077	18.268	126.810	1.00	22.94
ATOM	663	CB	LEU	98	77.318	18.714	128.255	1.00	20.45
ATOM	664	CG	LEU	98	78.670	19.366	128.567	1.00	19.51
ATOM	665	CD1	LEU	98	79.144	20.253	127.430	1.00	19.49
ATOM	666	CD2	LEU	98	78.530	20.154	129.839	1.00	18.78
ATOM	667	C	LEU	98	78.224	17.404	126.312	1.00	23.89
ATOM	668	O	LEU	98	78.681	16.502	127.008	1.00	25.47
ATOM	669	N	GLU	99	78.663	17.667	125.091	1.00	24.74
ATOM	670	CA	GLU	99	79.739	16.904	124.484	1.00	25.77
ATOM	671	CB	GLU	99	79.810	17.220	122.995	1.00	26.71
ATOM	672	CG	GLU	99	78.533	16.859	122.253	1.00	27.60

Table 6

ATOM	673	CD	GLU	99	78.266	15.370	122.263	1.00	28.48
ATOM	674	OE1	GLU	99	77.207	14.956	121.744	1.00	28.01
ATOM	675	OE2	GLU	99	79.120	14.613	122.786	1.00	29.35
ATOM	676	C	GLU	99	81.072	17.185	125.145	1.00	25.65
ATOM	677	O	GLU	99	81.206	18.144	125.894	1.00	25.21
ATOM	678	N	SER	100	82.053	16.333	124.864	1.00	26.16
ATOM	679	CA	SER	100	83.387	16.470	125.439	1.00	26.22
ATOM	680	CB	SER	100	84.270	15.298	125.018	1.00	27.81
ATOM	681	OG	SER	100	84.343	15.198	123.607	1.00	31.25
ATOM	682	C	SER	100	84.096	17.762	125.083	1.00	24.49
ATOM	683	O	SER	100	84.991	18.181	125.796	1.00	24.71
ATOM	684	N	ASN	101	83.721	18.394	123.980	1.00	23.73
ATOM	685	CA	ASN	101	84.377	19.644	123.630	1.00	22.99
ATOM	686	CB	ASN	101	84.550	19.800	122.115	1.00	21.76
ATOM	687	CG	ASN	101	83.251	19.952	121.397	1.00	20.18
ATOM	688	OD1	ASN	101	82.199	20.037	122.022	1.00	19.80
ATOM	689	ND2	ASN	101	83.308	19.997	120.072	1.00	18.87
ATOM	690	C	ASN	101	83.641	20.847	124.210	1.00	22.97
ATOM	691	O	ASN	101	83.962	21.987	123.904	1.00	23.31
ATOM	692	N	ASN	102	82.662	20.581	125.062	1.00	22.48
ATOM	693	CA	ASN	102	81.911	21.634	125.716	1.00	22.01
ATOM	694	CB	ASN	102	82.855	22.686	126.284	1.00	22.23
ATOM	695	CG	ASN	102	83.420	22.294	127.629	1.00	22.57
ATOM	696	OD1	ASN	102	82.696	21.846	128.511	1.00	22.39
ATOM	697	ND2	ASN	102	84.717	22.477	127.798	1.00	23.63
ATOM	698	C	ASN	102	80.813	22.334	124.934	1.00	21.28
ATOM	699	O	ASN	102	80.351	23.395	125.338	1.00	21.93
ATOM	700	N	TYR	103	80.402	21.777	123.809	1.00	20.20
ATOM	701	CA	TYR	103	79.303	22.378	123.082	1.00	19.42
ATOM	702	CB	TYR	103	79.633	22.530	121.594	1.00	18.57
ATOM	703	CG	TYR	103	80.564	23.697	121.266	1.00	18.66
ATOM	704	CD1	TYR	103	80.088	24.845	120.640	1.00	18.26
ATOM	705	CE1	TYR	103	80.933	25.902	120.332	1.00	16.61
ATOM	706	CD2	TYR	103	81.920	23.642	121.576	1.00	18.47
ATOM	707	CE2	TYR	103	82.770	24.697	121.276	1.00	17.49
ATOM	708	CZ	TYR	103	82.271	25.822	120.652	1.00	17.62
ATOM	709	OH	TYR	103	83.116	26.864	120.326	1.00	16.79
ATOM	710	C	TYR	103	78.166	21.391	123.326	1.00	20.73
ATOM	711	O	TYR	103	78.393	20.289	123.818	1.00	21.64
ATOM	712	N	ASN	104	76.939	21.788	123.031	1.00	21.46
ATOM	713	CA	ASN	104	75.804	20.905	123.242	1.00	21.95
ATOM	714	CB	ASN	104	74.694	21.645	123.992	1.00	22.16
ATOM	715	CG	ASN	104	75.008	21.824	125.460	1.00	21.47
ATOM	716	OD1	ASN	104	76.162	21.957	125.837	1.00	22.13
ATOM	717	ND2	ASN	104	73.983	21.842	126.288	1.00	20.81
ATOM	718	C	ASN	104	75.269	20.379	121.925	1.00	22.94
ATOM	719	O	ASN	104	75.466	20.989	120.872	1.00	22.22
ATOM	720	N	THR	105	74.604	19.231	121.989	1.00	23.66
ATOM	721	CA	THR	105	74.026	18.620	120.802	1.00	23.95
ATOM	722	CB	THR	105	74.781	17.357	120.377	1.00	22.66
ATOM	723	OG1	THR	105	74.811	16.443	121.475	1.00	24.98
ATOM	724	CG2	THR	105	76.202	17.696	119.964	1.00	21.44
ATOM	725	C	THR	105	72.610	18.229	121.130	1.00	24.19
ATOM	726	O	THR	105	72.356	17.580	122.142	1.00	23.89
ATOM	727	N	TYR	106	71.685	18.626	120.273	1.00	24.68
ATOM	728	CA	TYR	106	70.291	18.298	120.501	1.00	25.37

Table 6

ATOM	729	CB	TYR	106	69.462	19.574	120.412	1.00	21.41
ATOM	730	CG	TYR	106	69.796	20.501	121.544	1.00	17.07
ATOM	731	CD1	TYR	106	69.210	20.328	122.793	1.00	16.65
ATOM	732	CE1	TYR	106	69.608	21.088	123.888	1.00	15.13
ATOM	733	CD2	TYR	106	70.786	21.466	121.412	1.00	15.18
ATOM	734	CE2	TYR	106	71.196	22.232	122.502	1.00	14.37
ATOM	735	CZ	TYR	106	70.604	22.033	123.736	1.00	14.28
ATOM	736	OH	TYR	106	71.020	22.747	124.828	1.00	12.09
ATOM	737	C	TYR	106	69.846	17.252	119.499	1.00	27.76
ATOM	738	O	TYR	106	69.475	17.574	118.371	1.00	28.60
ATOM	739	N	ARG	107	69.905	15.993	119.931	1.00	29.65
ATOM	740	CA	ARG	107	69.552	14.846	119.103	1.00	30.86
ATOM	741	CB	ARG	107	70.457	13.674	119.468	1.00	31.13
ATOM	742	CG	ARG	107	70.380	12.485	118.532	1.00	32.41
ATOM	743	CD	ARG	107	71.598	11.571	118.713	1.00	32.66
ATOM	744	NE	ARG	107	71.750	11.094	120.090	1.00	32.94
ATOM	745	CZ	ARG	107	70.903	10.264	120.697	1.00	31.97
ATOM	746	NH1	ARG	107	69.837	9.805	120.055	1.00	31.43
ATOM	747	NH2	ARG	107	71.117	9.904	121.952	1.00	31.53
ATOM	748	C	ARG	107	68.105	14.445	119.279	1.00	31.79
ATOM	749	O	ARG	107	67.663	14.203	120.399	1.00	33.20
ATOM	750	N	SER	108	67.373	14.376	118.170	1.00	32.91
ATOM	751	CA	SER	108	65.957	14.007	118.183	1.00	33.98
ATOM	752	CB	SER	108	65.401	13.981	116.758	1.00	33.63
ATOM	753	OG	SER	108	64.127	13.364	116.710	1.00	32.09
ATOM	754	C	SER	108	65.725	12.649	118.814	1.00	34.53
ATOM	755	O	SER	108	66.249	11.640	118.345	1.00	33.98
ATOM	756	N	ARG	109	64.926	12.625	119.873	1.00	35.10
ATOM	757	CA	ARG	109	64.636	11.375	120.543	1.00	36.45
ATOM	758	CB	ARG	109	63.858	11.615	121.835	1.00	35.72
ATOM	759	CG	ARG	109	63.582	10.324	122.577	1.00	36.42
ATOM	760	CD	ARG	109	63.037	10.536	123.967	1.00	35.39
ATOM	761	NE	ARG	109	61.713	11.129	123.936	1.00	35.74
ATOM	762	CZ	ARG	109	60.951	11.273	125.011	1.00	36.28
ATOM	763	NH1	ARG	109	61.397	10.855	126.191	1.00	36.06
ATOM	764	NH2	ARG	109	59.761	11.854	124.909	1.00	36.38
ATOM	765	C	ARG	109	63.841	10.444	119.641	1.00	37.21
ATOM	766	O	ARG	109	63.930	9.223	119.773	1.00	36.80
ATOM	767	N	LYS	110	63.068	11.019	118.723	1.00	38.39
ATOM	768	CA	LYS	110	62.265	10.213	117.811	1.00	38.92
ATOM	769	CB	LYS	110	61.102	11.021	117.235	1.00	38.55
ATOM	770	CG	LYS	110	59.967	10.156	116.715	1.00	38.82
ATOM	771	CD	LYS	110	58.748	10.977	116.290	1.00	39.89
ATOM	772	CE	LYS	110	57.679	10.121	115.564	1.00	40.04
ATOM	773	NZ	LYS	110	57.046	9.064	116.420	1.00	37.08
ATOM	774	C	LYS	110	63.144	9.673	116.689	1.00	39.37
ATOM	775	O	LYS	110	63.311	8.465	116.558	1.00	40.36
ATOM	776	N	TYR	111	63.721	10.557	115.890	1.00	39.00
ATOM	777	CA	TYR	111	64.593	10.121	114.810	1.00	38.93
ATOM	778	CB	TYR	111	64.395	11.063	113.634	1.00	40.33
ATOM	779	CG	TYR	111	62.920	11.319	113.371	1.00	41.38
ATOM	780	CD1	TYR	111	62.035	10.264	113.185	1.00	41.70
ATOM	781	CE1	TYR	111	60.680	10.487	112.971	1.00	41.29
ATOM	782	CD2	TYR	111	62.406	12.611	113.337	1.00	41.72
ATOM	783	CE2	TYR	111	61.055	12.842	113.126	1.00	41.20
ATOM	784	CZ	TYR	111	60.197	11.775	112.943	1.00	41.51

Table 6

ATOM	785	OH	TYR	111	58.855	11.995	112.729	1.00	41.98
ATOM	786	C	TYR	111	66.037	10.119	115.322	1.00	38.59
ATOM	787	O	TYR	111	66.914	10.793	114.796	1.00	38.33
ATOM	788	N	THR	112	66.232	9.325	116.368	1.00	38.84
ATOM	789	CA	THR	112	67.476	9.136	117.111	1.00	39.06
ATOM	790	CB	THR	112	67.467	7.763	117.777	1.00	38.66
ATOM	791	OG1	THR	112	67.757	6.756	116.796	1.00	38.25
ATOM	792	CG2	THR	112	66.102	7.496	118.398	1.00	38.36
ATOM	793	C	THR	112	68.856	9.287	116.478	1.00	39.58
ATOM	794	O	THR	112	69.862	9.252	117.191	1.00	39.45
ATOM	795	N	SER	113	68.936	9.443	115.168	1.00	39.83
ATOM	796	CA	SER	113	70.246	9.565	114.543	1.00	39.71
ATOM	797	CB	SER	113	70.385	8.511	113.448	1.00	38.44
ATOM	798	OG	SER	113	69.216	8.475	112.648	1.00	37.77
ATOM	799	C	SER	113	70.488	10.947	113.967	1.00	39.75
ATOM	800	O	SER	113	71.540	11.213	113.393	1.00	39.88
ATOM	801	N	TRP	114	69.514	11.830	114.142	1.00	39.62
ATOM	802	CA	TRP	114	69.609	13.181	113.618	1.00	39.62
ATOM	803	CB	TRP	114	68.412	13.458	112.729	1.00	41.59
ATOM	804	CG	TRP	114	68.217	12.435	111.675	1.00	42.65
ATOM	805	CD2	TRP	114	67.041	12.237	110.895	1.00	42.92
ATOM	806	CE2	TRP	114	67.335	11.235	109.948	1.00	43.49
ATOM	807	CE3	TRP	114	65.767	12.814	110.899	1.00	42.96
ATOM	808	CD1	TRP	114	69.150	11.568	111.193	1.00	43.51
ATOM	809	NE1	TRP	114	68.631	10.845	110.154	1.00	44.02
ATOM	810	CZ2	TRP	114	66.399	10.793	109.010	1.00	42.90
ATOM	811	CZ3	TRP	114	64.838	12.379	109.968	1.00	43.00
ATOM	812	CH2	TRP	114	65.160	11.376	109.033	1.00	43.09
ATOM	813	C	TRP	114	69.673	14.249	114.686	1.00	38.97
ATOM	814	O	TRP	114	69.102	14.104	115.760	1.00	38.94
ATOM	815	N	TYR	115	70.350	15.342	114.370	1.00	38.45
ATOM	816	CA	TYR	115	70.500	16.439	115.312	1.00	37.45
ATOM	817	CB	TYR	115	71.981	16.730	115.566	1.00	38.19
ATOM	818	CG	TYR	115	72.769	15.592	116.159	1.00	38.70
ATOM	819	CD1	TYR	115	73.235	14.555	115.364	1.00	40.21
ATOM	820	CE1	TYR	115	73.971	13.518	115.901	1.00	40.15
ATOM	821	CD2	TYR	115	73.059	15.559	117.513	1.00	38.42
ATOM	822	CE2	TYR	115	73.792	14.530	118.057	1.00	38.96
ATOM	823	CZ	TYR	115	74.247	13.512	117.246	1.00	39.54
ATOM	824	OH	TYR	115	74.993	12.488	117.782	1.00	40.88
ATOM	825	C	TYR	115	69.860	17.725	114.825	1.00	35.83
ATOM	826	O	TYR	115	69.512	17.869	113.657	1.00	36.40
ATOM	827	N	VAL	116	69.704	18.661	115.745	1.00	33.23
ATOM	828	CA	VAL	116	69.180	19.953	115.392	1.00	31.90
ATOM	829	CB	VAL	116	68.616	20.675	116.608	1.00	29.60
ATOM	830	CG1	VAL	116	68.190	22.046	116.218	1.00	29.66
ATOM	831	CG2	VAL	116	67.448	19.915	117.165	1.00	28.27
ATOM	832	C	VAL	116	70.443	20.660	114.934	1.00	32.35
ATOM	833	O	VAL	116	71.470	20.575	115.609	1.00	33.68
ATOM	834	N	ALA	117	70.402	21.326	113.787	1.00	31.51
ATOM	835	CA	ALA	117	71.596	22.021	113.329	1.00	30.34
ATOM	836	CB	ALA	117	72.566	21.035	112.689	1.00	29.37
ATOM	837	C	ALA	117	71.322	23.168	112.381	1.00	30.52
ATOM	838	O	ALA	117	70.261	23.270	111.785	1.00	29.89
ATOM	839	N	LEU	118	72.301	24.044	112.254	1.00	31.70
ATOM	840	CA	LEU	118	72.171	25.171	111.365	1.00	33.07

Table 6

ATOM	841	CB	LEU	118	72.120	26.469	112.177	1.00	31.15
ATOM	842	CG	LEU	118	70.863	26.628	113.034	1.00	29.10
ATOM	843	CD1	LEU	118	70.940	27.882	113.846	1.00	29.11
ATOM	844	CD2	LEU	118	69.653	26.689	112.142	1.00	29.28
ATOM	845	C	LEU	118	73.336	25.179	110.382	1.00	34.94
ATOM	846	O	LEU	118	74.452	24.780	110.717	1.00	34.42
ATOM	847	N	LYS	119	73.061	25.606	109.155	1.00	37.22
ATOM	848	CA	LYS	119	74.088	25.682	108.127	1.00	39.12
ATOM	849	CB	LYS	119	73.449	25.678	106.742	1.00	39.24
ATOM	850	CG	LYS	119	72.650	24.423	106.458	1.00	39.74
ATOM	851	CD	LYS	119	72.649	24.116	104.977	1.00	41.15
ATOM	852	CE	LYS	119	71.540	24.836	104.224	1.00	42.85
ATOM	853	NZ	LYS	119	70.288	24.014	104.176	1.00	43.50
ATOM	854	C	LYS	119	74.874	26.962	108.339	1.00	40.49
ATOM	855	O	LYS	119	74.448	27.835	109.104	1.00	41.69
ATOM	856	N	ARG	120	76.023	27.094	107.686	1.00	41.30
ATOM	857	CA	ARG	120	76.798	28.313	107.878	1.00	42.48
ATOM	858	CB	ARG	120	78.283	28.124	107.520	1.00	42.64
ATOM	859	CG	ARG	120	78.605	27.689	106.101	1.00	43.83
ATOM	860	CD	ARG	120	78.594	26.175	105.955	1.00	43.47
ATOM	861	NE	ARG	120	79.014	25.722	104.629	1.00	43.21
ATOM	862	CZ	ARG	120	80.246	25.846	104.151	1.00	44.61
ATOM	863	NH1	ARG	120	81.190	26.415	104.884	1.00	46.17
ATOM	864	NH2	ARG	120	80.539	25.382	102.949	1.00	45.84
ATOM	865	C	ARG	120	76.183	29.446	107.075	1.00	43.28
ATOM	866	O	ARG	120	76.752	30.531	106.968	1.00	43.69
ATOM	867	N	THR	121	74.994	29.186	106.539	1.00	43.43
ATOM	868	CA	THR	121	74.271	30.170	105.756	1.00	42.23
ATOM	869	CB	THR	121	73.772	29.564	104.465	1.00	41.98
ATOM	870	OG1	THR	121	72.714	28.640	104.743	1.00	42.99
ATOM	871	CG2	THR	121	74.896	28.826	103.795	1.00	43.36
ATOM	872	C	THR	121	73.082	30.735	106.518	1.00	42.08
ATOM	873	O	THR	121	72.351	31.573	106.001	1.00	42.51
ATOM	874	N	GLY	122	72.873	30.264	107.740	1.00	41.44
ATOM	875	CA	GLY	122	71.779	30.792	108.525	1.00	41.27
ATOM	876	C	GLY	122	70.490	30.014	108.498	1.00	40.70
ATOM	877	O	GLY	122	69.527	30.412	109.143	1.00	40.68
ATOM	878	N	GLN	123	70.451	28.922	107.746	1.00	41.11
ATOM	879	CA	GLN	123	69.242	28.100	107.697	1.00	41.82
ATOM	880	CB	GLN	123	68.797	27.824	106.270	1.00	43.37
ATOM	881	CG	GLN	123	68.604	29.048	105.438	1.00	46.68
ATOM	882	CD	GLN	123	68.160	28.697	104.051	1.00	49.75
ATOM	883	OE1	GLN	123	68.680	27.753	103.442	1.00	52.33
ATOM	884	NE2	GLN	123	67.200	29.456	103.526	1.00	51.17
ATOM	885	C	GLN	123	69.566	26.783	108.348	1.00	40.53
ATOM	886	O	GLN	123	70.731	26.404	108.432	1.00	40.36
ATOM	887	N	TYR	124	68.544	26.071	108.797	1.00	39.08
ATOM	888	CA	TYR	124	68.801	24.797	109.443	1.00	38.47
ATOM	889	CB	TYR	124	67.533	24.254	110.123	1.00	34.77
ATOM	890	CG	TYR	124	66.425	23.813	109.199	1.00	32.38
ATOM	891	CD1	TYR	124	66.589	22.732	108.348	1.00	31.29
ATOM	892	CE1	TYR	124	65.565	22.315	107.502	1.00	30.22
ATOM	893	CD2	TYR	124	65.201	24.472	109.185	1.00	32.42
ATOM	894	CE2	TYR	124	64.168	24.061	108.345	1.00	31.68
ATOM	895	CZ	TYR	124	64.361	22.981	107.504	1.00	30.66
ATOM	896	OH	TYR	124	63.359	22.578	106.654	1.00	30.68

Table 6

ATOM	897	C	TYR	124	69.346	23.782	108.447	1.00	39.35
ATOM	898	O	TYR	124	69.467	24.066	107.256	1.00	39.98
ATOM	899	N	LYS	125	69.696	22.604	108.948	1.00	39.17
ATOM	900	CA	LYS	125	70.204	21.536	108.111	1.00	37.57
ATOM	901	CB	LYS	125	71.654	21.227	108.452	1.00	35.65
ATOM	902	CG	LYS	125	72.138	19.941	107.813	1.00	34.29
ATOM	903	CD	LYS	125	73.516	19.523	108.292	1.00	33.86
ATOM	904	CE	LYS	125	74.590	20.498	107.865	1.00	33.07
ATOM	905	NZ	LYS	125	75.942	19.930	108.107	1.00	32.09
ATOM	906	C	LYS	125	69.363	20.302	108.358	1.00	38.02
ATOM	907	O	LYS	125	69.148	19.914	109.500	1.00	37.99
ATOM	908	N	LEU	126	68.886	19.688	107.285	1.00	38.80
ATOM	909	CA	LEU	126	68.070	18.487	107.399	1.00	39.48
ATOM	910	CB	LEU	126	67.865	17.850	106.026	1.00	38.69
ATOM	911	CG	LEU	126	66.712	18.390	105.187	1.00	37.82
ATOM	912	CD1	LEU	126	66.513	17.471	104.001	1.00	37.53
ATOM	913	CD2	LEU	126	65.434	18.447	106.011	1.00	38.14
ATOM	914	C	LEU	126	68.699	17.464	108.324	1.00	39.57
ATOM	915	O	LEU	126	69.841	17.073	108.122	1.00	39.43
ATOM	916	N	GLY	127	67.949	17.037	109.334	1.00	40.17
ATOM	917	CA	GLY	127	68.463	16.056	110.269	1.00	42.23
ATOM	918	C	GLY	127	69.083	14.909	109.501	1.00	43.38
ATOM	919	O	GLY	127	70.170	14.426	109.827	1.00	43.71
ATOM	920	N	SER	128	68.386	14.480	108.458	1.00	43.71
ATOM	921	CA	SER	128	68.864	13.391	107.618	1.00	43.74
ATOM	922	CB	SER	128	67.888	13.146	106.458	1.00	43.62
ATOM	923	OG	SER	128	67.540	14.343	105.778	1.00	42.70
ATOM	924	C	SER	128	70.252	13.668	107.063	1.00	43.90
ATOM	925	O	SER	128	70.899	12.781	106.524	1.00	44.67
ATOM	926	N	LYS	129	70.710	14.901	107.216	1.00	44.72
ATOM	927	CA	LYS	129	72.011	15.315	106.717	1.00	45.28
ATOM	928	CB	LYS	129	71.787	16.519	105.792	1.00	46.93
ATOM	929	CG	LYS	129	73.011	17.141	105.138	1.00	52.08
ATOM	930	CD	LYS	129	72.582	18.374	104.302	1.00	55.55
ATOM	931	CE	LYS	129	73.575	19.559	104.376	1.00	57.33
ATOM	932	NZ	LYS	129	74.751	19.461	103.456	1.00	57.35
ATOM	933	C	LYS	129	72.975	15.644	107.871	1.00	44.19
ATOM	934	O	LYS	129	74.142	15.968	107.645	1.00	43.60
ATOM	935	N	THR	130	72.490	15.542	109.106	1.00	42.55
ATOM	936	CA	THR	130	73.315	15.846	110.268	1.00	42.68
ATOM	937	CB	THR	130	72.451	16.296	111.446	1.00	42.81
ATOM	938	OG1	THR	130	71.463	15.299	111.729	1.00	43.32
ATOM	939	CG2	THR	130	71.765	17.599	111.113	1.00	42.84
ATOM	940	C	THR	130	74.163	14.656	110.691	1.00	42.45
ATOM	941	O	THR	130	73.840	13.517	110.369	1.00	42.53
ATOM	942	N	GLY	131	75.248	14.925	111.415	1.00	42.09
ATOM	943	CA	GLY	131	76.129	13.852	111.842	1.00	41.59
ATOM	944	C	GLY	131	77.166	14.229	112.887	1.00	40.79
ATOM	945	O	GLY	131	77.635	15.363	112.932	1.00	40.05
ATOM	946	N	PRO	132	77.557	13.268	113.732	1.00	40.57
ATOM	947	CD	PRO	132	77.066	11.884	113.594	1.00	39.61
ATOM	948	CA	PRO	132	78.526	13.349	114.825	1.00	40.58
ATOM	949	CB	PRO	132	78.920	11.898	115.009	1.00	40.55
ATOM	950	CG	PRO	132	77.615	11.214	114.830	1.00	39.59
ATOM	951	C	PRO	132	79.736	14.258	114.635	1.00	40.69
ATOM	952	O	PRO	132	80.051	15.084	115.501	1.00	40.87

Table 6

ATOM	953	N	GLY	133	80.424	14.106	113.512	1.00	40.45
ATOM	954	CA	GLY	133	81.594	14.935	113.282	1.00	40.40
ATOM	955	C	GLY	133	81.340	16.358	112.800	1.00	39.70
ATOM	956	O	GLY	133	82.288	17.133	112.660	1.00	39.58
ATOM	957	N	GLN	134	80.076	16.711	112.566	1.00	39.01
ATOM	958	CA	GLN	134	79.709	18.038	112.056	1.00	38.30
ATOM	959	CB	GLN	134	78.320	17.985	111.431	1.00	38.69
ATOM	960	CG	GLN	134	78.259	17.176	110.162	1.00	40.00
ATOM	961	CD	GLN	134	76.850	17.017	109.655	1.00	40.48
ATOM	962	OE1	GLN	134	76.103	17.988	109.552	1.00	40.40
ATOM	963	NE2	GLN	134	76.478	15.787	109.325	1.00	40.61
ATOM	964	C	GLN	134	79.736	19.205	113.031	1.00	37.24
ATOM	965	O	GLN	134	79.481	19.039	114.222	1.00	37.79
ATOM	966	N	LYS	135	80.032	20.390	112.494	1.00	35.77
ATOM	967	CA	LYS	135	80.076	21.634	113.258	1.00	34.42
ATOM	968	CB	LYS	135	80.967	22.667	112.580	1.00	36.21
ATOM	969	CG	LYS	135	82.413	22.278	112.522	1.00	40.14
ATOM	970	CD	LYS	135	83.278	23.415	112.041	1.00	41.89
ATOM	971	CE	LYS	135	84.747	22.995	112.065	1.00	45.11
ATOM	972	NZ	LYS	135	85.048	21.792	111.216	1.00	47.95
ATOM	973	C	LYS	135	78.694	22.231	113.366	1.00	32.96
ATOM	974	O	LYS	135	78.436	23.039	114.242	1.00	32.00
ATOM	975	N	ALA	136	77.810	21.831	112.461	1.00	32.01
ATOM	976	CA	ALA	136	76.441	22.329	112.437	1.00	30.91
ATOM	977	CB	ALA	136	75.736	21.844	111.179	1.00	29.19
ATOM	978	C	ALA	136	75.631	21.921	113.655	1.00	30.28
ATOM	979	O	ALA	136	74.732	22.640	114.072	1.00	31.03
ATOM	980	N	ILE	137	75.950	20.770	114.228	1.00	29.98
ATOM	981	CA	ILE	137	75.199	20.272	115.380	1.00	28.90
ATOM	982	CB	ILE	137	75.272	18.738	115.500	1.00	28.83
ATOM	983	CG2	ILE	137	74.575	18.091	114.307	1.00	28.65
ATOM	984	CG1	ILE	137	76.736	18.310	115.642	1.00	28.11
ATOM	985	CD1	ILE	137	76.919	16.849	115.872	1.00	28.77
ATOM	986	C	ILE	137	75.599	20.833	116.726	1.00	27.60
ATOM	987	O	ILE	137	74.818	20.762	117.668	1.00	28.34
ATOM	988	N	LEU	138	76.803	21.388	116.818	1.00	25.80
ATOM	989	CA	LEU	138	77.297	21.939	118.078	1.00	24.32
ATOM	990	CB	LEU	138	78.804	22.137	118.003	1.00	20.98
ATOM	991	CG	LEU	138	79.595	20.913	117.602	1.00	17.84
ATOM	992	CD1	LEU	138	81.051	21.189	117.842	1.00	16.51
ATOM	993	CD2	LEU	138	79.128	19.720	118.404	1.00	17.39
ATOM	994	C	LEU	138	76.665	23.262	118.478	1.00	24.83
ATOM	995	O	LEU	138	76.710	24.234	117.727	1.00	26.01
ATOM	996	N	PHE	139	76.089	23.307	119.673	1.00	24.34
ATOM	997	CA	PHE	139	75.464	24.529	120.156	1.00	23.84
ATOM	998	CB	PHE	139	73.953	24.367	120.264	1.00	22.28
ATOM	999	CG	PHE	139	73.261	24.395	118.957	1.00	22.93
ATOM	1000	CD1	PHE	139	73.124	23.241	118.209	1.00	22.66
ATOM	1001	CD2	PHE	139	72.787	25.599	118.441	1.00	23.82
ATOM	1002	CE1	PHE	139	72.528	23.280	116.959	1.00	23.77
ATOM	1003	CE2	PHE	139	72.187	25.657	117.188	1.00	23.07
ATOM	1004	CZ	PHE	139	72.057	24.496	116.447	1.00	24.52
ATOM	1005	C	PHE	139	76.000	24.938	121.508	1.00	24.57
ATOM	1006	O	PHE	139	76.331	24.088	122.331	1.00	25.29
ATOM	1007	N	LEU	140	76.080	26.246	121.734	1.00	24.86
ATOM	1008	CA	LEU	140	76.561	26.778	123.000	1.00	24.03

Table 6

ATOM	1009	CB	LEU	140	77.732	27.720	122.767	1.00	23.49
ATOM	1010	CG	LEU	140	78.316	28.286	124.056	1.00	24.43
ATOM	1011	CD1	LEU	140	78.869	27.149	124.901	1.00	24.94
ATOM	1012	CD2	LEU	140	79.403	29.293	123.725	1.00	25.05
ATOM	1013	C	LEU	140	75.442	27.528	123.696	1.00	23.97
ATOM	1014	O	LEU	140	74.984	28.559	123.218	1.00	24.09
ATOM	1015	N	PRO	141	74.972	27.012	124.835	1.00	25.23
ATOM	1016	CD	PRO	141	75.348	25.765	125.523	1.00	26.10
ATOM	1017	CA	PRO	141	73.893	27.692	125.550	1.00	24.64
ATOM	1018	CB	PRO	141	73.431	26.642	126.546	1.00	24.01
ATOM	1019	CG	PRO	141	74.697	25.950	126.879	1.00	25.83
ATOM	1020	C	PRO	141	74.411	28.940	126.225	1.00	24.54
ATOM	1021	O	PRO	141	75.468	28.921	126.840	1.00	24.16
ATOM	1022	N	MET	142	73.656	30.023	126.095	1.00	25.83
ATOM	1023	CA	MET	142	74.021	31.302	126.684	1.00	26.94
ATOM	1024	CB	MET	142	74.467	32.259	125.590	1.00	26.73
ATOM	1025	CG	MET	142	75.681	31.797	124.828	1.00	26.52
ATOM	1026	SD	MET	142	75.825	32.695	123.291	1.00	28.68
ATOM	1027	CE	MET	142	76.028	34.375	123.889	1.00	30.05
ATOM	1028	C	MET	142	72.841	31.898	127.439	1.00	28.78
ATOM	1029	O	MET	142	71.691	31.797	127.008	1.00	30.16
ATOM	1030	N	SER	143	73.144	32.533	128.561	1.00	30.18
ATOM	1031	CA	SER	143	72.141	33.137	129.428	1.00	31.33
ATOM	1032	CB	SER	143	72.815	33.782	130.635	1.00	33.94
ATOM	1033	OG	SER	143	73.513	34.964	130.241	1.00	34.85
ATOM	1034	C	SER	143	71.316	34.201	128.753	1.00	32.07
ATOM	1035	O	SER	143	71.709	34.760	127.723	1.00	33.01
ATOM	1036	N	ALA	144	70.184	34.504	129.378	1.00	32.11
ATOM	1037	CA	ALA	144	69.272	35.514	128.877	1.00	33.33
ATOM	1038	CB	ALA	144	68.459	34.950	127.712	1.00	31.68
ATOM	1039	C	ALA	144	68.354	35.953	130.012	1.00	33.81
ATOM	1040	O	ALA	144	68.722	36.947	130.676	1.00	35.06
ATOM	1041	CB	HIS	1016	101.518	8.804	140.892	1.00	59.01
ATOM	1042	CG	HIS	1016	101.606	8.263	142.280	1.00	61.41
ATOM	1043	CD2	HIS	1016	101.132	7.115	142.818	1.00	62.71
ATOM	1044	ND1	HIS	1016	102.190	8.962	143.315	1.00	61.90
ATOM	1045	CE1	HIS	1016	102.065	8.269	144.433	1.00	63.14
ATOM	1046	NE2	HIS	1016	101.428	7.145	144.159	1.00	63.99
ATOM	1047	C	HIS	1016	101.836	11.252	141.291	1.00	57.42
ATOM	1048	O	HIS	1016	102.845	11.510	140.626	1.00	56.67
ATOM	1049	N	HIS	1016	100.399	10.408	139.406	1.00	56.36
ATOM	1050	CA	HIS	1016	100.844	10.175	140.811	1.00	57.59
ATOM	1051	N	PHE	1017	101.561	11.859	142.448	1.00	57.43
ATOM	1052	CA	PHE	1017	102.428	12.900	143.019	1.00	57.26
ATOM	1053	CB	PHE	1017	101.756	13.525	144.262	1.00	59.29
ATOM	1054	CG	PHE	1017	101.888	12.691	145.536	1.00	61.69
ATOM	1055	CD1	PHE	1017	103.100	12.628	146.234	1.00	62.85
ATOM	1056	CD2	PHE	1017	100.804	11.962	146.029	1.00	61.97
ATOM	1057	CE1	PHE	1017	103.226	11.848	147.402	1.00	63.09
ATOM	1058	CE2	PHE	1017	100.922	11.184	147.193	1.00	62.16
ATOM	1059	CZ	PHE	1017	102.134	11.128	147.877	1.00	62.36
ATOM	1060	C	PHE	1017	103.817	12.377	143.418	1.00	56.18
ATOM	1061	O	PHE	1017	104.793	13.137	143.454	1.00	56.25
ATOM	1062	N	LYS	1018	103.893	11.084	143.738	1.00	54.65
ATOM	1063	CA	LYS	1018	105.148	10.462	144.160	1.00	52.68
ATOM	1064	CB	LYS	1018	104.867	9.246	145.051	1.00	51.33

Table 6

ATOM	1065	C	LYS	1018	106.050	10.046	142.998	1.00	51.79
ATOM	1066	O	LYS	1018	107.274	10.033	143.143	1.00	52.60
ATOM	1067	N	ASP	1019	105.452	9.703	141.856	1.00	50.23
ATOM	1068	CA	ASP	1019	106.215	9.298	140.669	1.00	48.35
ATOM	1069	CB	ASP	1019	105.298	8.704	139.591	1.00	48.73
ATOM	1070	CG	ASP	1019	104.915	7.266	139.862	1.00	49.14
ATOM	1071	OD1	ASP	1019	105.830	6.437	140.063	1.00	49.01
ATOM	1072	OD2	ASP	1019	103.698	6.968	139.856	1.00	49.31
ATOM	1073	C	ASP	1019	106.930	10.486	140.040	1.00	46.68
ATOM	1074	O	ASP	1019	106.536	11.632	140.237	1.00	47.50
ATOM	1075	N	PRO	1020	107.992	10.227	139.266	1.00	44.76
ATOM	1076	CD	PRO	1020	108.718	8.957	139.111	1.00	45.04
ATOM	1077	CA	PRO	1020	108.724	11.314	138.618	1.00	43.38
ATOM	1078	CB	PRO	1020	109.937	10.609	138.016	1.00	43.53
ATOM	1079	CG	PRO	1020	110.133	9.436	138.912	1.00	44.61
ATOM	1080	C	PRO	1020	107.838	11.904	137.532	1.00	41.94
ATOM	1081	O	PRO	1020	106.804	11.332	137.188	1.00	42.82
ATOM	1082	N	LYS	1021	108.251	13.040	136.990	1.00	39.67
ATOM	1083	CA	LYS	1021	107.504	13.687	135.931	1.00	37.28
ATOM	1084	CB	LYS	1021	106.621	14.775	136.527	1.00	37.64
ATOM	1085	CG	LYS	1021	105.772	14.264	137.667	1.00	38.77
ATOM	1086	CD	LYS	1021	104.743	15.284	138.098	1.00	39.71
ATOM	1087	CE	LYS	1021	103.909	14.744	139.244	1.00	40.35
ATOM	1088	NZ	LYS	1021	102.948	15.773	139.724	1.00	42.34
ATOM	1089	C	LYS	1021	108.473	14.287	134.927	1.00	35.45
ATOM	1090	O	LYS	1021	109.651	14.454	135.221	1.00	34.78
ATOM	1091	N	ARG	1022	107.986	14.569	133.728	1.00	34.49
ATOM	1092	CA	ARG	1022	108.807	15.208	132.703	1.00	33.99
ATOM	1093	CB	ARG	1022	108.688	14.506	131.346	1.00	35.90
ATOM	1094	CG	ARG	1022	108.969	13.004	131.299	1.00	38.98
ATOM	1095	CD	ARG	1022	108.848	12.540	129.843	1.00	41.25
ATOM	1096	NE	ARG	1022	108.420	11.152	129.670	1.00	42.83
ATOM	1097	CZ	ARG	1022	109.222	10.093	129.748	1.00	44.82
ATOM	1098	NH1	ARG	1022	110.518	10.248	130.005	1.00	46.32
ATOM	1099	NH2	ARG	1022	108.731	8.875	129.547	1.00	44.61
ATOM	1100	C	ARG	1022	108.168	16.588	132.589	1.00	32.26
ATOM	1101	O	ARG	1022	106.947	16.714	132.720	1.00	32.02
ATOM	1102	N	LEU	1023	108.960	17.629	132.361	1.00	29.70
ATOM	1103	CA	LEU	1023	108.364	18.952	132.240	1.00	27.31
ATOM	1104	CB	LEU	1023	109.045	19.915	133.216	1.00	27.24
ATOM	1105	CG	LEU	1023	108.723	19.725	134.711	1.00	26.31
ATOM	1106	CD1	LEU	1023	109.524	20.709	135.531	1.00	25.75
ATOM	1107	CD2	LEU	1023	107.240	19.937	134.980	1.00	23.99
ATOM	1108	C	LEU	1023	108.418	19.486	130.810	1.00	25.84
ATOM	1109	O	LEU	1023	109.410	20.081	130.399	1.00	26.23
ATOM	1110	N	TYR	1024	107.339	19.264	130.064	1.00	23.83
ATOM	1111	CA	TYR	1024	107.228	19.690	128.671	1.00	22.57
ATOM	1112	CB	TYR	1024	106.120	18.899	127.983	1.00	20.06
ATOM	1113	CG	TYR	1024	105.878	19.250	126.529	1.00	19.18
ATOM	1114	CD1	TYR	1024	105.143	20.378	126.169	1.00	18.27
ATOM	1115	CE1	TYR	1024	104.860	20.657	124.833	1.00	18.14
ATOM	1116	CD2	TYR	1024	106.335	18.414	125.509	1.00	18.75
ATOM	1117	CE2	TYR	1024	106.062	18.684	124.172	1.00	18.37
ATOM	1118	CZ	TYR	1024	105.324	19.802	123.836	1.00	19.29
ATOM	1119	OH	TYR	1024	105.039	20.050	122.506	1.00	19.56
ATOM	1120	C	TYR	1024	106.929	21.173	128.558	1.00	23.20

Table 6

ATOM	1121	O	TYR	1024	105.830	21.614	128.880	1.00	22.70
ATOM	1122	N	CYS	1025	107.905	21.939	128.087	1.00	23.90
ATOM	1123	CA	CYS	1025	107.724	23.378	127.947	1.00	24.69
ATOM	1124	CB	CYS	1025	109.076	24.078	127.978	1.00	24.85
ATOM	1125	SG	CYS	1025	108.936	25.801	127.521	1.00	28.12
ATOM	1126	C	CYS	1025	106.977	23.755	126.675	1.00	24.46
ATOM	1127	O	CYS	1025	107.374	23.377	125.577	1.00	25.06
ATOM	1128	N	LYS	1026	105.902	24.519	126.825	1.00	24.76
ATOM	1129	CA	LYS	1026	105.080	24.932	125.686	1.00	25.07
ATOM	1130	CB	LYS	1026	103.983	25.901	126.131	1.00	23.49
ATOM	1131	CG	LYS	1026	103.154	26.435	124.979	1.00	21.62
ATOM	1132	CD	LYS	1026	102.026	27.292	125.466	1.00	20.45
ATOM	1133	CE	LYS	1026	101.077	27.578	124.341	1.00	20.75
ATOM	1134	NZ	LYS	1026	99.757	27.987	124.874	1.00	20.11
ATOM	1135	C	LYS	1026	105.858	25.574	124.543	1.00	25.60
ATOM	1136	O	LYS	1026	105.474	25.466	123.381	1.00	24.78
ATOM	1137	N	ASN	1027	106.954	26.238	124.877	1.00	26.80
ATOM	1138	CA	ASN	1027	107.759	26.920	123.879	1.00	27.49
ATOM	1139	CB	ASN	1027	108.581	28.012	124.561	1.00	29.75
ATOM	1140	CG	ASN	1027	109.111	29.032	123.586	1.00	31.30
ATOM	1141	OD1	ASN	1027	109.855	28.701	122.672	1.00	32.40
ATOM	1142	ND2	ASN	1027	108.722	30.283	123.776	1.00	32.49
ATOM	1143	C	ASN	1027	108.688	25.993	123.109	1.00	27.16
ATOM	1144	O	ASN	1027	109.874	25.906	123.416	1.00	26.88
ATOM	1145	N	GLY	1028	108.157	25.307	122.104	1.00	26.67
ATOM	1146	CA	GLY	1028	108.997	24.423	121.318	1.00	25.66
ATOM	1147	C	GLY	1028	108.874	22.946	121.623	1.00	25.00
ATOM	1148	O	GLY	1028	109.349	22.114	120.856	1.00	24.79
ATOM	1149	N	GLY	1029	108.247	22.611	122.742	1.00	24.17
ATOM	1150	CA	GLY	1029	108.083	21.215	123.077	1.00	23.89
ATOM	1151	C	GLY	1029	109.342	20.605	123.639	1.00	24.58
ATOM	1152	O	GLY	1029	109.561	19.394	123.530	1.00	25.56
ATOM	1153	N	PHE	1030	110.185	21.438	124.234	1.00	24.21
ATOM	1154	CA	PHE	1030	111.408	20.923	124.818	1.00	24.60
ATOM	1155	CB	PHE	1030	112.506	21.994	124.833	1.00	27.19
ATOM	1156	CG	PHE	1030	113.013	22.370	123.471	1.00	28.03
ATOM	1157	CD1	PHE	1030	112.293	23.243	122.656	1.00	28.82
ATOM	1158	CD2	PHE	1030	114.186	21.810	122.977	1.00	28.15
ATOM	1159	CE1	PHE	1030	112.735	23.547	121.361	1.00	28.58
ATOM	1160	CE2	PHE	1030	114.634	22.104	121.688	1.00	27.55
ATOM	1161	CZ	PHE	1030	113.905	22.975	120.879	1.00	28.04
ATOM	1162	C	PHE	1030	111.114	20.483	126.240	1.00	24.03
ATOM	1163	O	PHE	1030	110.433	21.194	126.984	1.00	24.19
ATOM	1164	N	PHE	1031	111.607	19.306	126.606	1.00	23.11
ATOM	1165	CA	PHE	1031	111.420	18.799	127.957	1.00	23.93
ATOM	1166	CB	PHE	1031	111.553	17.284	127.985	1.00	23.81
ATOM	1167	CG	PHE	1031	110.423	16.563	127.342	1.00	24.08
ATOM	1168	CD1	PHE	1031	109.186	16.491	127.965	1.00	24.04
ATOM	1169	CD2	PHE	1031	110.609	15.902	126.133	1.00	24.06
ATOM	1170	CE1	PHE	1031	108.138	15.759	127.392	1.00	25.00
ATOM	1171	CE2	PHE	1031	109.578	15.171	125.551	1.00	23.76
ATOM	1172	CZ	PHE	1031	108.336	15.096	126.181	1.00	24.63
ATOM	1173	C	PHE	1031	112.544	19.391	128.782	1.00	24.04
ATOM	1174	O	PHE	1031	113.694	19.372	128.348	1.00	24.45
ATOM	1175	N	LEU	1032	112.222	19.914	129.962	1.00	24.19
ATOM	1176	CA	LEU	1032	113.249	20.483	130.828	1.00	24.56

Table 6

ATOM	1177	CB	LEU	1032	112.627	21.058	132.102	1.00	25.47
ATOM	1178	CG	LEU	1032	113.620	21.473	133.186	1.00	25.35
ATOM	1179	CD1	LEU	1032	114.612	22.467	132.624	1.00	25.37
ATOM	1180	CD2	LEU	1032	112.856	22.069	134.351	1.00	26.44
ATOM	1181	C	LEU	1032	114.227	19.382	131.204	1.00	24.51
ATOM	1182	O	LEU	1032	113.820	18.325	131.683	1.00	24.03
ATOM	1183	N	ARG	1033	115.513	19.618	130.988	1.00	25.35
ATOM	1184	CA	ARG	1033	116.480	18.600	131.333	1.00	27.36
ATOM	1185	CB	ARG	1033	117.053	17.938	130.099	1.00	29.33
ATOM	1186	CG	ARG	1033	118.195	17.018	130.427	1.00	30.80
ATOM	1187	CD	ARG	1033	118.837	16.584	129.155	1.00	33.61
ATOM	1188	NE	ARG	1033	119.158	17.738	128.327	1.00	34.72
ATOM	1189	CZ	ARG	1033	119.497	17.657	127.047	1.00	36.13
ATOM	1190	NH1	ARG	1033	119.557	16.469	126.453	1.00	35.83
ATOM	1191	NH2	ARG	1033	119.766	18.764	126.363	1.00	36.25
ATOM	1192	C	ARG	1033	117.617	19.067	132.206	1.00	28.28
ATOM	1193	O	ARG	1033	118.128	20.192	132.074	1.00	27.87
ATOM	1194	N	ILE	1034	118.004	18.165	133.102	1.00	28.57
ATOM	1195	CA	ILE	1034	119.077	18.413	134.042	1.00	29.81
ATOM	1196	CB	ILE	1034	118.602	18.182	135.503	1.00	29.73
ATOM	1197	CG2	ILE	1034	119.672	18.645	136.479	1.00	29.55
ATOM	1198	CG1	ILE	1034	117.292	18.927	135.770	1.00	28.20
ATOM	1199	CD1	ILE	1034	117.417	20.419	135.788	1.00	28.36
ATOM	1200	C	ILE	1034	120.197	17.427	133.741	1.00	31.51
ATOM	1201	O	ILE	1034	120.023	16.216	133.901	1.00	32.11
ATOM	1202	N	HIS	1035	121.337	17.951	133.297	1.00	33.05
ATOM	1203	CA	HIS	1035	122.508	17.136	132.989	1.00	34.19
ATOM	1204	CB	HIS	1035	123.489	17.942	132.145	1.00	36.64
ATOM	1205	CG	HIS	1035	123.020	18.181	130.747	1.00	40.58
ATOM	1206	CD2	HIS	1035	122.613	19.311	130.122	1.00	42.17
ATOM	1207	ND1	HIS	1035	122.911	17.166	129.818	1.00	42.83
ATOM	1208	CE1	HIS	1035	122.456	17.663	128.679	1.00	43.39
ATOM	1209	NE2	HIS	1035	122.267	18.962	128.837	1.00	44.24
ATOM	1210	C	HIS	1035	123.177	16.729	134.292	1.00	33.79
ATOM	1211	O	HIS	1035	123.072	17.435	135.292	1.00	33.45
ATOM	1212	N	PRO	1036	123.857	15.576	134.306	1.00	34.09
ATOM	1213	CD	PRO	1036	123.803	14.488	133.312	1.00	34.23
ATOM	1214	CA	PRO	1036	124.531	15.133	135.535	1.00	34.98
ATOM	1215	CB	PRO	1036	125.088	13.763	135.148	1.00	34.75
ATOM	1216	CG	PRO	1036	124.066	13.264	134.168	1.00	34.74
ATOM	1217	C	PRO	1036	125.630	16.116	135.968	1.00	35.63
ATOM	1218	O	PRO	1036	126.026	16.155	137.137	1.00	34.88
ATOM	1219	N	ASP	1037	126.104	16.916	135.017	1.00	36.45
ATOM	1220	CA	ASP	1037	127.151	17.890	135.289	1.00	38.23
ATOM	1221	CB	ASP	1037	127.973	18.131	134.024	1.00	40.95
ATOM	1222	CG	ASP	1037	127.209	18.925	132.975	1.00	43.34
ATOM	1223	OD1	ASP	1037	126.783	20.060	133.279	1.00	44.61
ATOM	1224	OD2	ASP	1037	127.039	18.418	131.844	1.00	44.86
ATOM	1225	C	ASP	1037	126.621	19.233	135.793	1.00	39.23
ATOM	1226	O	ASP	1037	127.403	20.138	136.091	1.00	40.23
ATOM	1227	N	GLY	1038	125.301	19.382	135.863	1.00	39.39
ATOM	1228	CA	GLY	1038	124.740	20.635	136.342	1.00	38.48
ATOM	1229	C	GLY	1038	124.132	21.533	135.278	1.00	38.00
ATOM	1230	O	GLY	1038	123.409	22.474	135.606	1.00	37.99
ATOM	1231	N	ARG	1039	124.419	21.273	134.008	1.00	37.82
ATOM	1232	CA	ARG	1039	123.848	22.100	132.951	1.00	38.07

Table 6

ATOM	1233	CB	ARG	1039	124.432	21.739	131.591	1.00	40.33
ATOM	1234	CG	ARG	1039	125.856	22.173	131.337	1.00	42.49
ATOM	1235	CD	ARG	1039	126.235	21.758	129.924	1.00	45.35
ATOM	1236	NE	ARG	1039	126.170	20.303	129.755	1.00	48.54
ATOM	1237	CZ	ARG	1039	125.744	19.683	128.653	1.00	49.62
ATOM	1238	NH1	ARG	1039	125.735	18.354	128.605	1.00	49.36
ATOM	1239	NH2	ARG	1039	125.311	20.383	127.606	1.00	48.98
ATOM	1240	C	ARG	1039	122.346	21.882	132.887	1.00	37.46
ATOM	1241	O	ARG	1039	121.852	20.793	133.187	1.00	37.66
ATOM	1242	N	VAL	1040	121.620	22.917	132.487	1.00	36.66
ATOM	1243	CA	VAL	1040	120.168	22.832	132.359	1.00	35.75
ATOM	1244	CB	VAL	1040	119.461	23.634	133.479	1.00	35.63
ATOM	1245	CG1	VAL	1040	117.970	23.515	133.343	1.00	35.65
ATOM	1246	CG2	VAL	1040	119.904	23.138	134.832	1.00	35.67
ATOM	1247	C	VAL	1040	119.737	23.392	130.994	1.00	35.53
ATOM	1248	O	VAL	1040	120.135	24.496	130.596	1.00	36.39
ATOM	1249	N	ASP	1041	118.929	22.626	130.274	1.00	33.97
ATOM	1250	CA	ASP	1041	118.447	23.046	128.967	1.00	32.42
ATOM	1251	CB	ASP	1041	119.534	22.848	127.916	1.00	32.62
ATOM	1252	CG	ASP	1041	120.015	21.411	127.843	1.00	32.94
ATOM	1253	OD1	ASP	1041	120.810	21.104	126.933	1.00	33.43
ATOM	1254	OD2	ASP	1041	119.605	20.591	128.695	1.00	32.32
ATOM	1255	C	ASP	1041	117.255	22.175	128.632	1.00	31.66
ATOM	1256	O	ASP	1041	116.714	21.500	129.510	1.00	32.29
ATOM	1257	N	GLY	1042	116.853	22.177	127.367	1.00	30.54
ATOM	1258	CA	GLY	1042	115.727	21.364	126.962	1.00	29.69
ATOM	1259	C	GLY	1042	116.060	20.372	125.866	1.00	29.53
ATOM	1260	O	GLY	1042	117.030	20.527	125.146	1.00	29.47
ATOM	1261	N	VAL	1043	115.248	19.334	125.756	1.00	30.48
ATOM	1262	CA	VAL	1043	115.418	18.319	124.732	1.00	31.18
ATOM	1263	CB	VAL	1043	116.175	17.097	125.222	1.00	30.95
ATOM	1264	CG1	VAL	1043	117.582	17.153	124.723	1.00	31.45
ATOM	1265	CG2	VAL	1043	116.136	17.031	126.740	1.00	31.50
ATOM	1266	C	VAL	1043	114.048	17.855	124.350	1.00	33.51
ATOM	1267	O	VAL	1043	113.209	17.590	125.212	1.00	35.18
ATOM	1268	N	ARG	1044	113.814	17.763	123.054	1.00	34.82
ATOM	1269	CA	ARG	1044	112.530	17.319	122.564	1.00	36.01
ATOM	1270	CB	ARG	1044	112.392	17.677	121.088	1.00	35.77
ATOM	1271	CG	ARG	1044	112.204	19.145	120.799	1.00	36.67
ATOM	1272	CD	ARG	1044	111.240	19.275	119.629	1.00	36.95
ATOM	1273	NE	ARG	1044	111.264	20.585	118.999	1.00	36.46
ATOM	1274	CZ	ARG	1044	112.322	21.071	118.376	1.00	37.37
ATOM	1275	NH1	ARG	1044	113.429	20.344	118.317	1.00	38.72
ATOM	1276	NH2	ARG	1044	112.269	22.265	117.804	1.00	38.11
ATOM	1277	C	ARG	1044	112.379	15.806	122.730	1.00	36.56
ATOM	1278	O	ARG	1044	111.267	15.293	122.861	1.00	37.22
ATOM	1279	N	GLU	1045	113.501	15.098	122.725	1.00	37.07
ATOM	1280	CA	GLU	1045	113.479	13.648	122.830	1.00	39.00
ATOM	1281	CB	GLU	1045	114.880	13.103	122.589	1.00	41.67
ATOM	1282	CG	GLU	1045	114.959	11.601	122.703	1.00	45.67
ATOM	1283	CD	GLU	1045	113.987	10.909	121.774	1.00	47.99
ATOM	1284	OE1	GLU	1045	114.065	11.168	120.552	1.00	48.20
ATOM	1285	OE2	GLU	1045	113.152	10.112	122.266	1.00	49.71
ATOM	1286	C	GLU	1045	112.934	13.125	124.157	1.00	39.22
ATOM	1287	O	GLU	1045	113.573	13.254	125.204	1.00	39.70
ATOM	1288	N	LYS	1046	111.755	12.511	124.098	1.00	39.02

Table 6

ATOM	1289	CA	LYS	1046	111.095	11.980	125.284	1.00	38.99
ATOM	1290	CB	LYS	1046	109.712	11.453	124.903	1.00	40.13
ATOM	1291	CG	LYS	1046	108.760	11.275	126.072	1.00	41.18
ATOM	1292	CD	LYS	1046	107.452	10.664	125.597	1.00	41.92
ATOM	1293	CE	LYS	1046	106.445	10.538	126.724	1.00	42.22
ATOM	1294	NZ	LYS	1046	105.377	9.565	126.377	1.00	41.59
ATOM	1295	C	LYS	1046	111.895	10.869	125.947	1.00	38.27
ATOM	1296	O	LYS	1046	111.705	10.572	127.127	1.00	38.11
ATOM	1297	N	SER	1047	112.798	10.257	125.194	1.00	37.78
ATOM	1298	CA	SER	1047	113.587	9.169	125.745	1.00	37.54
ATOM	1299	CB	SER	1047	113.930	8.157	124.653	1.00	37.91
ATOM	1300	OG	SER	1047	114.816	8.722	123.704	1.00	38.67
ATOM	1301	C	SER	1047	114.865	9.632	126.425	1.00	37.38
ATOM	1302	O	SER	1047	115.596	8.818	126.987	1.00	37.63
ATOM	1303	N	ASP	1048	115.142	10.931	126.391	1.00	37.33
ATOM	1304	CA	ASP	1048	116.364	11.406	127.023	1.00	37.51
ATOM	1305	CB	ASP	1048	116.451	12.924	127.034	1.00	38.35
ATOM	1306	CG	ASP	1048	117.766	13.401	127.603	1.00	39.91
ATOM	1307	OD1	ASP	1048	118.706	13.622	126.817	1.00	41.96
ATOM	1308	OD2	ASP	1048	117.878	13.519	128.841	1.00	39.65
ATOM	1309	C	ASP	1048	116.464	10.892	128.456	1.00	36.69
ATOM	1310	O	ASP	1048	115.500	10.915	129.213	1.00	37.46
ATOM	1311	N	PRO	1049	117.648	10.436	128.855	1.00	36.45
ATOM	1312	CD	PRO	1049	118.917	10.515	128.109	1.00	37.50
ATOM	1313	CA	PRO	1049	117.871	9.905	130.203	1.00	36.97
ATOM	1314	CB	PRO	1049	119.215	9.221	130.069	1.00	37.74
ATOM	1315	CG	PRO	1049	119.951	10.220	129.195	1.00	38.33
ATOM	1316	C	PRO	1049	117.900	10.947	131.327	1.00	37.11
ATOM	1317	O	PRO	1049	117.942	10.590	132.506	1.00	36.40
ATOM	1318	N	HIS	1050	117.872	12.227	130.971	1.00	36.89
ATOM	1319	CA	HIS	1050	117.946	13.275	131.978	1.00	36.16
ATOM	1320	CB	HIS	1050	119.217	14.092	131.740	1.00	38.30
ATOM	1321	CG	HIS	1050	120.450	13.251	131.642	1.00	41.46
ATOM	1322	CD2	HIS	1050	121.244	12.953	130.588	1.00	42.61
ATOM	1323	ND1	HIS	1050	120.952	12.537	132.710	1.00	42.99
ATOM	1324	CE1	HIS	1050	121.998	11.833	132.319	1.00	41.93
ATOM	1325	NE2	HIS	1050	122.197	12.067	131.035	1.00	42.82
ATOM	1326	C	HIS	1050	116.731	14.194	132.059	1.00	35.30
ATOM	1327	O	HIS	1050	116.842	15.336	132.526	1.00	35.31
ATOM	1328	N	ILE	1051	115.572	13.714	131.617	1.00	33.53
ATOM	1329	CA	ILE	1051	114.381	14.550	131.688	1.00	32.37
ATOM	1330	CB	ILE	1051	113.604	14.576	130.346	1.00	32.31
ATOM	1331	CG2	ILE	1051	114.456	15.166	129.279	1.00	33.43
ATOM	1332	CG1	ILE	1051	113.173	13.168	129.944	1.00	33.19
ATOM	1333	CD1	ILE	1051	112.059	13.153	128.925	1.00	35.55
ATOM	1334	C	ILE	1051	113.420	14.119	132.800	1.00	31.45
ATOM	1335	O	ILE	1051	112.386	14.766	133.007	1.00	30.74
ATOM	1336	N	LYS	1052	113.753	13.031	133.499	1.00	30.01
ATOM	1337	CA	LYS	1052	112.911	12.539	134.589	1.00	29.82
ATOM	1338	CB	LYS	1052	113.178	11.056	134.836	1.00	29.20
ATOM	1339	CG	LYS	1052	112.119	10.160	134.223	1.00	30.35
ATOM	1340	CD	LYS	1052	112.543	8.688	134.198	1.00	32.59
ATOM	1341	CE	LYS	1052	111.398	7.744	133.745	1.00	33.09
ATOM	1342	NZ	LYS	1052	110.379	7.422	134.818	1.00	32.19
ATOM	1343	C	LYS	1052	113.178	13.355	135.856	1.00	30.43
ATOM	1344	O	LYS	1052	114.215	13.204	136.507	1.00	30.77

Table 6

ATOM	1345	N	LEU	1053	112.225	14.219	136.198	1.00	29.79
ATOM	1346	CA	LEU	1053	112.352	15.100	137.349	1.00	29.36
ATOM	1347	CB	LEU	1053	111.990	16.532	136.939	1.00	29.08
ATOM	1348	CG	LEU	1053	112.364	16.937	135.507	1.00	28.41
ATOM	1349	CD1	LEU	1053	111.923	18.366	135.238	1.00	28.73
ATOM	1350	CD2	LEU	1053	113.852	16.785	135.299	1.00	27.13
ATOM	1351	C	LEU	1053	111.474	14.680	138.518	1.00	29.19
ATOM	1352	O	LEU	1053	110.356	14.209	138.337	1.00	30.04
ATOM	1353	N	GLN	1054	111.988	14.865	139.725	1.00	28.59
ATOM	1354	CA	GLN	1054	111.252	14.522	140.927	1.00	27.99
ATOM	1355	CB	GLN	1054	112.114	13.674	141.848	1.00	30.24
ATOM	1356	CG	GLN	1054	111.328	12.989	142.939	1.00	33.29
ATOM	1357	CD	GLN	1054	110.286	12.031	142.386	1.00	35.36
ATOM	1358	OE1	GLN	1054	110.615	11.090	141.656	1.00	35.98
ATOM	1359	NE2	GLN	1054	109.020	12.263	142.733	1.00	37.07
ATOM	1360	C	GLN	1054	110.877	15.823	141.615	1.00	27.38
ATOM	1361	O	GLN	1054	111.707	16.470	142.255	1.00	26.70
ATOM	1362	N	LEU	1055	109.624	16.224	141.455	1.00	27.43
ATOM	1363	CA	LEU	1055	109.174	17.464	142.062	1.00	27.22
ATOM	1364	CB	LEU	1055	108.036	18.086	141.253	1.00	26.41
ATOM	1365	CG	LEU	1055	108.096	18.061	139.724	1.00	25.53
ATOM	1366	CD1	LEU	1055	107.477	19.348	139.210	1.00	26.11
ATOM	1367	CD2	LEU	1055	109.516	17.932	139.224	1.00	25.01
ATOM	1368	C	LEU	1055	108.717	17.155	143.477	1.00	27.58
ATOM	1369	O	LEU	1055	107.894	16.266	143.705	1.00	28.23
ATOM	1370	N	GLN	1056	109.282	17.883	144.430	1.00	27.30
ATOM	1371	CA	GLN	1056	108.973	17.686	145.834	1.00	26.90
ATOM	1372	CB	GLN	1056	110.237	17.290	146.587	1.00	25.90
ATOM	1373	CG	GLN	1056	110.053	17.177	148.068	1.00	25.61
ATOM	1374	CD	GLN	1056	109.254	15.962	148.458	1.00	25.90
ATOM	1375	OE1	GLN	1056	109.647	14.830	148.180	1.00	26.01
ATOM	1376	NE2	GLN	1056	108.125	16.188	149.109	1.00	26.29
ATOM	1377	C	GLN	1056	108.470	18.997	146.373	1.00	27.81
ATOM	1378	O	GLN	1056	108.977	20.057	146.004	1.00	28.43
ATOM	1379	N	ALA	1057	107.470	18.942	147.239	1.00	28.38
ATOM	1380	CA	ALA	1057	106.955	20.170	147.813	1.00	29.08
ATOM	1381	CB	ALA	1057	105.489	20.034	148.133	1.00	28.76
ATOM	1382	C	ALA	1057	107.733	20.419	149.080	1.00	29.91
ATOM	1383	O	ALA	1057	108.043	19.482	149.818	1.00	28.98
ATOM	1384	N	GLU	1058	108.083	21.674	149.326	1.00	31.39
ATOM	1385	CA	GLU	1058	108.793	21.986	150.553	1.00	32.34
ATOM	1386	CB	GLU	1058	109.930	22.975	150.309	1.00	32.18
ATOM	1387	CG	GLU	1058	110.960	22.983	151.429	1.00	31.46
ATOM	1388	CD	GLU	1058	111.597	21.618	151.657	1.00	32.73
ATOM	1389	OE1	GLU	1058	111.898	20.928	150.655	1.00	33.37
ATOM	1390	OE2	GLU	1058	111.810	21.239	152.833	1.00	31.34
ATOM	1391	C	GLU	1058	107.741	22.574	151.478	1.00	32.21
ATOM	1392	O	GLU	1058	107.961	22.715	152.672	1.00	33.06
ATOM	1393	N	GLU	1059	106.586	22.889	150.896	1.00	32.19
ATOM	1394	CA	GLU	1059	105.437	23.419	151.617	1.00	32.10
ATOM	1395	CB	GLU	1059	105.829	24.600	152.491	1.00	35.18
ATOM	1396	CG	GLU	1059	106.378	25.769	151.712	1.00	40.63
ATOM	1397	CD	GLU	1059	106.664	26.957	152.598	1.00	43.35
ATOM	1398	OE1	GLU	1059	107.449	26.789	153.562	1.00	44.97
ATOM	1399	OE2	GLU	1059	106.106	28.048	152.331	1.00	45.15
ATOM	1400	C	GLU	1059	104.420	23.858	150.589	1.00	30.54

Table 6

ATOM	1401	O	GLU	1059	104.743	23.981	149.414	1.00	30.71
ATOM	1402	N	ARG	1060	103.192	24.094	151.027	1.00	29.55
ATOM	1403	CA	ARG	1060	102.133	24.519	150.117	1.00	29.30
ATOM	1404	CB	ARG	1060	101.011	25.229	150.866	1.00	30.12
ATOM	1405	CG	ARG	1060	100.039	24.290	151.508	1.00	35.96
ATOM	1406	CD	ARG	1060	98.847	25.021	152.089	1.00	40.51
ATOM	1407	NE	ARG	1060	98.154	25.824	151.087	1.00	44.34
ATOM	1408	CZ	ARG	1060	96.887	26.214	151.196	1.00	46.43
ATOM	1409	NH1	ARG	1060	96.173	25.870	152.264	1.00	47.36
ATOM	1410	NH2	ARG	1060	96.330	26.944	150.236	1.00	47.74
ATOM	1411	C	ARG	1060	102.596	25.440	149.009	1.00	28.18
ATOM	1412	O	ARG	1060	103.131	26.515	149.271	1.00	28.69
ATOM	1413	N	GLY	1061	102.386	24.997	147.772	1.00	26.61
ATOM	1414	CA	GLY	1061	102.726	25.789	146.607	1.00	23.35
ATOM	1415	C	GLY	1061	104.187	25.978	146.276	1.00	22.25
ATOM	1416	O	GLY	1061	104.512	26.659	145.297	1.00	22.12
ATOM	1417	N	VAL	1062	105.073	25.379	147.063	1.00	20.62
ATOM	1418	CA	VAL	1062	106.500	25.543	146.817	1.00	20.40
ATOM	1419	CB	VAL	1062	107.221	26.212	148.004	1.00	20.05
ATOM	1420	CG1	VAL	1062	108.671	26.449	147.641	1.00	19.63
ATOM	1421	CG2	VAL	1062	106.542	27.513	148.382	1.00	19.04
ATOM	1422	C	VAL	1062	107.181	24.225	146.593	1.00	20.43
ATOM	1423	O	VAL	1062	107.045	23.306	147.398	1.00	22.34
ATOM	1424	N	VAL	1063	107.946	24.133	145.520	1.00	19.65
ATOM	1425	CA	VAL	1063	108.633	22.895	145.251	1.00	20.40
ATOM	1426	CB	VAL	1063	107.990	22.162	144.062	1.00	20.01
ATOM	1427	CG1	VAL	1063	106.540	21.905	144.340	1.00	19.91
ATOM	1428	CG2	VAL	1063	108.143	22.981	142.797	1.00	19.44
ATOM	1429	C	VAL	1063	110.117	23.034	144.955	1.00	21.75
ATOM	1430	O	VAL	1063	110.634	24.123	144.701	1.00	20.92
ATOM	1431	N	SER	1064	110.792	21.895	145.024	1.00	22.70
ATOM	1432	CA	SER	1064	112.197	21.774	144.683	1.00	24.22
ATOM	1433	CB	SER	1064	112.945	20.909	145.687	1.00	24.50
ATOM	1434	OG	SER	1064	112.712	19.526	145.427	1.00	25.23
ATOM	1435	C	SER	1064	112.001	20.949	143.418	1.00	26.06
ATOM	1436	O	SER	1064	110.987	20.260	143.287	1.00	27.26
ATOM	1437	N	ILE	1065	112.936	21.019	142.481	1.00	26.78
ATOM	1438	CA	ILE	1065	112.830	20.241	141.244	1.00	26.41
ATOM	1439	CB	ILE	1065	112.670	21.159	140.002	1.00	26.08
ATOM	1440	CG2	ILE	1065	112.846	20.365	138.726	1.00	25.26
ATOM	1441	CG1	ILE	1065	111.283	21.810	140.014	1.00	26.82
ATOM	1442	CD1	ILE	1065	111.098	22.875	138.958	1.00	25.95
ATOM	1443	C	ILE	1065	114.137	19.494	141.164	1.00	26.94
ATOM	1444	O	ILE	1065	115.187	20.095	140.953	1.00	27.36
ATOM	1445	N	LYS	1066	114.078	18.184	141.350	1.00	27.63
ATOM	1446	CA	LYS	1066	115.291	17.384	141.338	1.00	28.04
ATOM	1447	CB	LYS	1066	115.335	16.508	142.587	1.00	29.73
ATOM	1448	CG	LYS	1066	116.610	15.692	142.743	1.00	32.05
ATOM	1449	CD	LYS	1066	116.683	15.055	144.129	1.00	33.02
ATOM	1450	CE	LYS	1066	117.803	14.032	144.218	1.00	34.21
ATOM	1451	NZ	LYS	1066	117.779	13.299	145.517	1.00	35.54
ATOM	1452	C	LYS	1066	115.442	16.506	140.127	1.00	27.29
ATOM	1453	O	LYS	1066	114.572	15.695	139.858	1.00	28.65
ATOM	1454	N	GLY	1067	116.543	16.670	139.394	1.00	26.76
ATOM	1455	CA	GLY	1067	116.786	15.826	138.237	1.00	26.32
ATOM	1456	C	GLY	1067	117.139	14.470	138.810	1.00	25.76

Table 6

ATOM	1457	O	GLY	1067	118.123	14.341	139.526	1.00	25.98
ATOM	1458	N	VAL	1068	116.329	13.461	138.527	1.00	26.18
ATOM	1459	CA	VAL	1068	116.568	12.125	139.068	1.00	26.58
ATOM	1460	CB	VAL	1068	115.472	11.134	138.596	1.00	24.83
ATOM	1461	CG1	VAL	1068	115.872	9.712	138.916	1.00	22.24
ATOM	1462	CG2	VAL	1068	114.157	11.472	139.260	1.00	22.15
ATOM	1463	C	VAL	1068	117.938	11.549	138.723	1.00	28.21
ATOM	1464	O	VAL	1068	118.682	11.132	139.614	1.00	27.21
ATOM	1465	N	SER	1069	118.273	11.530	137.434	1.00	30.07
ATOM	1466	CA	SER	1069	119.557	10.969	137.008	1.00	32.16
ATOM	1467	CB	SER	1069	119.589	10.758	135.492	1.00	32.96
ATOM	1468	OG	SER	1069	119.730	11.997	134.813	1.00	35.81
ATOM	1469	C	SER	1069	120.761	11.815	137.429	1.00	32.02
ATOM	1470	O	SER	1069	121.749	11.284	137.930	1.00	31.07
ATOM	1471	N	ALA	1070	120.668	13.125	137.230	1.00	32.98
ATOM	1472	CA	ALA	1070	121.747	14.042	137.577	1.00	33.74
ATOM	1473	CB	ALA	1070	121.487	15.401	136.955	1.00	35.08
ATOM	1474	C	ALA	1070	121.892	14.196	139.076	1.00	34.28
ATOM	1475	O	ALA	1070	122.900	14.702	139.563	1.00	33.83
ATOM	1476	N	ASN	1071	120.884	13.749	139.811	1.00	35.69
ATOM	1477	CA	ASN	1071	120.904	13.876	141.256	1.00	36.90
ATOM	1478	CB	ASN	1071	121.828	12.840	141.884	1.00	38.21
ATOM	1479	CG	ASN	1071	121.792	12.885	143.398	1.00	40.11
ATOM	1480	OD1	ASN	1071	120.725	12.788	144.008	1.00	39.64
ATOM	1481	ND2	ASN	1071	122.960	13.037	144.016	1.00	42.09
ATOM	1482	C	ASN	1071	121.364	15.278	141.641	1.00	37.10
ATOM	1483	O	ASN	1071	122.301	15.452	142.418	1.00	36.45
ATOM	1484	N	ARG	1072	120.699	16.273	141.063	1.00	38.23
ATOM	1485	CA	ARG	1072	120.979	17.681	141.333	1.00	40.56
ATOM	1486	CB	ARG	1072	121.832	18.286	140.214	1.00	43.40
ATOM	1487	CG	ARG	1072	123.263	17.796	140.149	1.00	47.03
ATOM	1488	CD	ARG	1072	124.011	18.408	138.956	1.00	49.83
ATOM	1489	NE	ARG	1072	125.429	18.055	138.983	1.00	53.54
ATOM	1490	CZ	ARG	1072	126.318	18.595	139.814	1.00	55.37
ATOM	1491	NH1	ARG	1072	125.947	19.528	140.684	1.00	56.73
ATOM	1492	NH2	ARG	1072	127.575	18.177	139.802	1.00	56.12
ATOM	1493	C	ARG	1072	119.645	18.430	141.412	1.00	40.46
ATOM	1494	O	ARG	1072	118.611	17.911	140.997	1.00	40.54
ATOM	1495	N	TYR	1073	119.672	19.653	141.926	1.00	40.46
ATOM	1496	CA	TYR	1073	118.462	20.456	142.055	1.00	40.39
ATOM	1497	CB	TYR	1073	118.286	20.915	143.499	1.00	42.52
ATOM	1498	CG	TYR	1073	118.051	19.769	144.437	1.00	46.38
ATOM	1499	CD1	TYR	1073	119.089	18.919	144.805	1.00	47.67
ATOM	1500	CE1	TYR	1073	118.856	17.824	145.630	1.00	49.63
ATOM	1501	CD2	TYR	1073	116.773	19.495	144.918	1.00	47.71
ATOM	1502	CE2	TYR	1073	116.530	18.402	145.738	1.00	48.59
ATOM	1503	CZ	TYR	1073	117.571	17.571	146.093	1.00	49.39
ATOM	1504	OH	TYR	1073	117.320	16.483	146.903	1.00	50.55
ATOM	1505	C	TYR	1073	118.474	21.673	141.161	1.00	39.53
ATOM	1506	O	TYR	1073	119.457	22.397	141.092	1.00	38.34
ATOM	1507	N	LEU	1074	117.368	21.910	140.477	1.00	39.81
ATOM	1508	CA	LEU	1074	117.285	23.072	139.607	1.00	40.61
ATOM	1509	CB	LEU	1074	116.026	23.010	138.750	1.00	41.25
ATOM	1510	CG	LEU	1074	115.821	24.151	137.755	1.00	41.64
ATOM	1511	CD1	LEU	1074	116.927	24.113	136.718	1.00	42.78
ATOM	1512	CD2	LEU	1074	114.461	24.018	137.074	1.00	42.53

Table 6

ATOM	1513	C	LEU	1074	117.258	24.334	140.460	1.00	41.43
ATOM	1514	O	LEU	1074	116.326	24.548	141.243	1.00	41.50
ATOM	1515	N	ALA	1075	118.289	25.161	140.311	1.00	42.19
ATOM	1516	CA	ALA	1075	118.391	26.412	141.058	1.00	42.44
ATOM	1517	CB	ALA	1075	119.536	26.329	142.046	1.00	41.88
ATOM	1518	C	ALA	1075	118.608	27.590	140.106	1.00	43.17
ATOM	1519	O	ALA	1075	119.308	27.459	139.101	1.00	42.34
ATOM	1520	N	MET	1076	117.993	28.732	140.416	1.00	44.63
ATOM	1521	CA	MET	1076	118.134	29.932	139.595	1.00	46.04
ATOM	1522	CB	MET	1076	116.769	30.543	139.269	1.00	47.68
ATOM	1523	CG	MET	1076	116.832	31.817	138.414	1.00	49.54
ATOM	1524	SD	MET	1076	115.200	32.466	137.860	1.00	50.79
ATOM	1525	CE	MET	1076	114.834	33.601	139.156	1.00	48.61
ATOM	1526	C	MET	1076	118.972	30.942	140.354	1.00	47.36
ATOM	1527	O	MET	1076	118.577	31.417	141.422	1.00	47.71
ATOM	1528	N	LYS	1077	120.138	31.257	139.799	1.00	48.65
ATOM	1529	CA	LYS	1077	121.054	32.204	140.411	1.00	50.09
ATOM	1530	CB	LYS	1077	122.428	32.063	139.774	1.00	49.88
ATOM	1531	CG	LYS	1077	122.892	30.620	139.686	1.00	49.37
ATOM	1532	CD	LYS	1077	122.854	29.934	141.044	1.00	49.96
ATOM	1533	CE	LYS	1077	123.705	30.668	142.081	1.00	49.24
ATOM	1534	NZ	LYS	1077	123.839	29.874	143.343	1.00	49.00
ATOM	1535	C	LYS	1077	120.536	33.627	140.256	1.00	51.61
ATOM	1536	O	LYS	1077	119.554	33.863	139.548	1.00	51.81
ATOM	1537	N	GLU	1078	121.202	34.570	140.918	1.00	53.33
ATOM	1538	CA	GLU	1078	120.805	35.980	140.892	1.00	54.67
ATOM	1539	CB	GLU	1078	121.730	36.793	141.789	1.00	56.39
ATOM	1540	CG	GLU	1078	123.154	36.855	141.286	1.00	60.41
ATOM	1541	CD	GLU	1078	124.030	37.707	142.175	1.00	63.75
ATOM	1542	OE1	GLU	1078	123.617	38.851	142.485	1.00	64.51
ATOM	1543	OE2	GLU	1078	125.127	37.234	142.559	1.00	65.35
ATOM	1544	C	GLU	1078	120.756	36.641	139.512	1.00	54.55
ATOM	1545	O	GLU	1078	119.907	37.499	139.270	1.00	54.10
ATOM	1546	N	ASP	1079	121.663	36.269	138.612	1.00	53.83
ATOM	1547	CA	ASP	1079	121.658	36.875	137.279	1.00	53.00
ATOM	1548	CB	ASP	1079	122.962	36.564	136.539	1.00	52.34
ATOM	1549	CG	ASP	1079	123.172	35.087	136.347	1.00	52.66
ATOM	1550	OD1	ASP	1079	124.074	34.708	135.574	1.00	52.13
ATOM	1551	OD2	ASP	1079	122.434	34.304	136.981	1.00	52.70
ATOM	1552	C	ASP	1079	120.472	36.359	136.460	1.00	52.05
ATOM	1553	O	ASP	1079	120.171	36.877	135.377	1.00	51.50
ATOM	1554	N	GLY	1080	119.807	35.331	136.984	1.00	50.75
ATOM	1555	CA	GLY	1080	118.668	34.752	136.295	1.00	48.77
ATOM	1556	C	GLY	1080	119.015	33.559	135.426	1.00	47.34
ATOM	1557	O	GLY	1080	118.249	33.205	134.532	1.00	46.65
ATOM	1558	N	ARG	1081	120.165	32.939	135.679	1.00	46.16
ATOM	1559	CA	ARG	1081	120.579	31.780	134.903	1.00	45.71
ATOM	1560	CB	ARG	1081	122.084	31.834	134.626	1.00	47.53
ATOM	1561	CG	ARG	1081	122.955	31.772	135.864	1.00	49.72
ATOM	1562	CD	ARG	1081	124.439	31.920	135.531	1.00	50.75
ATOM	1563	NE	ARG	1081	125.286	31.647	136.692	1.00	52.82
ATOM	1564	CZ	ARG	1081	125.373	32.422	137.772	1.00	53.14
ATOM	1565	NH1	ARG	1081	124.671	33.542	137.858	1.00	52.95
ATOM	1566	NH2	ARG	1081	126.154	32.064	138.783	1.00	54.10
ATOM	1567	C	ARG	1081	120.229	30.518	135.671	1.00	43.90
ATOM	1568	O	ARG	1081	120.166	30.535	136.891	1.00	44.30

Table 6

ATOM	1569	N	LEU	1082	119.988	29.430	134.953	1.00	42.56
ATOM	1570	CA	LEU	1082	119.632	28.168	135.586	1.00	41.88
ATOM	1571	CB	LEU	1082	118.513	27.464	134.804	1.00	39.65
ATOM	1572	CG	LEU	1082	117.245	28.286	134.563	1.00	38.35
ATOM	1573	CD1	LEU	1082	116.291	27.517	133.699	1.00	36.79
ATOM	1574	CD2	LEU	1082	116.597	28.642	135.889	1.00	38.70
ATOM	1575	C	LEU	1082	120.830	27.246	135.682	1.00	41.96
ATOM	1576	O	LEU	1082	121.814	27.411	134.972	1.00	41.58
ATOM	1577	N	LEU	1083	120.725	26.275	136.576	1.00	43.51
ATOM	1578	CA	LEU	1083	121.767	25.277	136.804	1.00	45.29
ATOM	1579	CB	LEU	1083	123.088	25.941	137.202	1.00	47.13
ATOM	1580	CG	LEU	1083	123.080	26.795	138.471	1.00	49.20
ATOM	1581	CD1	LEU	1083	123.140	25.887	139.699	1.00	50.34
ATOM	1582	CD2	LEU	1083	124.273	27.751	138.452	1.00	49.30
ATOM	1583	C	LEU	1083	121.282	24.366	137.917	1.00	45.30
ATOM	1584	O	LEU	1083	120.358	24.719	138.655	1.00	45.86
ATOM	1585	N	ALA	1084	121.904	23.204	138.057	1.00	45.08
ATOM	1586	CA	ALA	1084	121.466	22.273	139.082	1.00	46.14
ATOM	1587	CB	ALA	1084	121.001	20.983	138.434	1.00	45.94
ATOM	1588	C	ALA	1084	122.528	21.980	140.128	1.00	46.93
ATOM	1589	O	ALA	1084	123.569	21.401	139.822	1.00	47.13
ATOM	1590	N	SER	1085	122.246	22.383	141.366	1.00	48.12
ATOM	1591	CA	SER	1085	123.152	22.174	142.489	1.00	48.98
ATOM	1592	CB	SER	1085	122.752	23.072	143.655	1.00	48.95
ATOM	1593	OG	SER	1085	123.625	22.857	144.751	1.00	52.03
ATOM	1594	C	SER	1085	123.143	20.717	142.954	1.00	49.51
ATOM	1595	O	SER	1085	122.150	20.008	142.780	1.00	50.20
ATOM	1596	N	LYS	1086	124.246	20.270	143.550	1.00	49.42
ATOM	1597	CA	LYS	1086	124.327	18.897	144.022	1.00	49.13
ATOM	1598	CB	LYS	1086	125.782	18.477	144.221	1.00	50.70
ATOM	1599	CG	LYS	1086	125.969	16.970	144.344	1.00	52.87
ATOM	1600	CD	LYS	1086	125.581	16.261	143.049	1.00	54.61
ATOM	1601	CE	LYS	1086	125.953	14.777	143.073	1.00	55.42
ATOM	1602	NZ	LYS	1086	125.678	14.111	141.762	1.00	55.89
ATOM	1603	C	LYS	1086	123.573	18.783	145.334	1.00	48.17
ATOM	1604	O	LYS	1086	123.048	17.721	145.671	1.00	48.36
ATOM	1605	N	SER	1087	123.528	19.883	146.076	1.00	46.90
ATOM	1606	CA	SER	1087	122.822	19.917	147.351	1.00	46.76
ATOM	1607	CB	SER	1087	123.809	20.024	148.523	1.00	47.35
ATOM	1608	OG	SER	1087	124.816	20.994	148.282	1.00	49.65
ATOM	1609	C	SER	1087	121.857	21.088	147.336	1.00	46.01
ATOM	1610	O	SER	1087	122.063	22.067	146.636	1.00	46.35
ATOM	1611	N	VAL	1088	120.793	20.989	148.108	1.00	46.03
ATOM	1612	CA	VAL	1088	119.792	22.038	148.112	1.00	46.71
ATOM	1613	CB	VAL	1088	118.524	21.563	148.840	1.00	46.96
ATOM	1614	CG1	VAL	1088	117.427	22.596	148.709	1.00	47.19
ATOM	1615	CG2	VAL	1088	118.069	20.241	148.253	1.00	48.07
ATOM	1616	C	VAL	1088	120.254	23.350	148.722	1.00	47.27
ATOM	1617	O	VAL	1088	121.065	23.370	149.651	1.00	48.46
ATOM	1618	N	THR	1089	119.730	24.444	148.178	1.00	47.34
ATOM	1619	CA	THR	1089	120.035	25.792	148.650	1.00	48.06
ATOM	1620	CB	THR	1089	121.104	26.468	147.793	1.00	49.46
ATOM	1621	OG1	THR	1089	120.468	27.273	146.790	1.00	50.85
ATOM	1622	CG2	THR	1089	121.990	25.417	147.122	1.00	49.79
ATOM	1623	C	THR	1089	118.750	26.596	148.517	1.00	47.80
ATOM	1624	O	THR	1089	117.827	26.181	147.820	1.00	47.73

Table 6

ATOM	1625	N	ASP	1090	118.693	27.753	149.163	1.00	48.02
ATOM	1626	CA	ASP	1090	117.488	28.575	149.127	1.00	49.32
ATOM	1627	CB	ASP	1090	117.664	29.796	150.035	1.00	51.84
ATOM	1628	CG	ASP	1090	118.986	30.499	149.811	1.00	54.89
ATOM	1629	OD1	ASP	1090	119.108	31.227	148.801	1.00	56.63
ATOM	1630	OD2	ASP	1090	119.905	30.309	150.642	1.00	56.50
ATOM	1631	C	ASP	1090	117.083	29.021	147.731	1.00	48.91
ATOM	1632	O	ASP	1090	116.061	29.689	147.557	1.00	49.18
ATOM	1633	N	GLU	1091	117.878	28.646	146.736	1.00	48.37
ATOM	1634	CA	GLU	1091	117.596	29.023	145.350	1.00	47.47
ATOM	1635	CB	GLU	1091	118.876	29.494	144.635	1.00	49.80
ATOM	1636	CG	GLU	1091	119.301	30.935	144.886	1.00	50.93
ATOM	1637	CD	GLU	1091	120.616	31.274	144.195	1.00	51.80
ATOM	1638	OE1	GLU	1091	121.626	30.605	144.502	1.00	52.38
ATOM	1639	OE2	GLU	1091	120.640	32.202	143.351	1.00	51.13
ATOM	1640	C	GLU	1091	117.012	27.871	144.555	1.00	45.38
ATOM	1641	O	GLU	1091	116.833	27.983	143.348	1.00	45.82
ATOM	1642	N	CYS	1092	116.733	26.759	145.219	1.00	43.43
ATOM	1643	CA	CYS	1092	116.182	25.607	144.525	1.00	41.85
ATOM	1644	CB	CYS	1092	116.895	24.332	144.968	1.00	43.23
ATOM	1645	SG	CYS	1092	118.677	24.412	144.713	1.00	49.74
ATOM	1646	C	CYS	1092	114.698	25.479	144.777	1.00	39.04
ATOM	1647	O	CYS	1092	114.115	24.426	144.546	1.00	39.56
ATOM	1648	N	PHE	1093	114.085	26.559	145.235	1.00	36.22
ATOM	1649	CA	PHE	1093	112.663	26.534	145.532	1.00	35.29
ATOM	1650	CB	PHE	1093	112.437	26.872	147.012	1.00	35.35
ATOM	1651	CG	PHE	1093	113.179	25.953	147.953	1.00	36.46
ATOM	1652	CD1	PHE	1093	113.031	24.570	147.858	1.00	36.94
ATOM	1653	CD2	PHE	1093	114.069	26.460	148.894	1.00	36.72
ATOM	1654	CE1	PHE	1093	113.763	23.708	148.680	1.00	36.12
ATOM	1655	CE2	PHE	1093	114.803	25.602	149.719	1.00	36.60
ATOM	1656	CZ	PHE	1093	114.647	24.227	149.607	1.00	36.17
ATOM	1657	C	PHE	1093	111.873	27.464	144.632	1.00	34.61
ATOM	1658	O	PHE	1093	112.259	28.610	144.400	1.00	35.53
ATOM	1659	N	PHE	1094	110.757	26.958	144.120	1.00	32.86
ATOM	1660	CA	PHE	1094	109.937	27.740	143.218	1.00	31.49
ATOM	1661	CB	PHE	1094	110.168	27.247	141.793	1.00	33.20
ATOM	1662	CG	PHE	1094	111.613	27.080	141.432	1.00	32.78
ATOM	1663	CD1	PHE	1094	112.212	27.930	140.520	1.00	33.09
ATOM	1664	CD2	PHE	1094	112.365	26.057	141.987	1.00	33.53
ATOM	1665	CE1	PHE	1094	113.538	27.761	140.162	1.00	34.51
ATOM	1666	CE2	PHE	1094	113.695	25.875	141.640	1.00	34.65
ATOM	1667	CZ	PHE	1094	114.286	26.726	140.724	1.00	34.52
ATOM	1668	C	PHE	1094	108.456	27.645	143.551	1.00	30.07
ATOM	1669	O	PHE	1094	108.011	26.683	144.165	1.00	30.00
ATOM	1670	N	PHE	1095	107.697	28.656	143.150	1.00	29.18
ATOM	1671	CA	PHE	1095	106.258	28.654	143.367	1.00	29.08
ATOM	1672	CB	PHE	1095	105.678	30.075	143.330	1.00	30.70
ATOM	1673	CG	PHE	1095	105.982	30.902	144.540	1.00	32.10
ATOM	1674	CD1	PHE	1095	106.302	32.251	144.405	1.00	32.20
ATOM	1675	CD2	PHE	1095	105.943	30.353	145.814	1.00	32.82
ATOM	1676	CE1	PHE	1095	106.581	33.039	145.521	1.00	31.63
ATOM	1677	CE2	PHE	1095	106.223	31.142	146.943	1.00	32.55
ATOM	1678	CZ	PHE	1095	106.542	32.482	146.789	1.00	31.42
ATOM	1679	C	PHE	1095	105.674	27.896	142.190	1.00	28.62
ATOM	1680	O	PHE	1095	105.714	28.378	141.052	1.00	28.80

Table 6

ATOM	1681	N	GLU	1096	105.147	26.707	142.442	1.00	27.22
ATOM	1682	CA	GLU	1096	104.543	25.963	141.361	1.00	25.98
ATOM	1683	CB	GLU	1096	104.605	24.475	141.632	1.00	25.73
ATOM	1684	CG	GLU	1096	104.008	23.669	140.521	1.00	23.45
ATOM	1685	CD	GLU	1096	103.987	22.226	140.855	1.00	22.74
ATOM	1686	OE1	GLU	1096	103.359	21.875	141.877	1.00	23.44
ATOM	1687	OE2	GLU	1096	104.607	21.449	140.108	1.00	22.66
ATOM	1688	C	GLU	1096	103.096	26.427	141.272	1.00	25.50
ATOM	1689	O	GLU	1096	102.356	26.399	142.254	1.00	25.24
ATOM	1690	N	ARG	1097	102.699	26.866	140.090	1.00	25.40
ATOM	1691	CA	ARG	1097	101.358	27.364	139.908	1.00	26.28
ATOM	1692	CB	ARG	1097	101.390	28.886	139.876	1.00	29.12
ATOM	1693	CG	ARG	1097	100.057	29.523	139.621	1.00	32.88
ATOM	1694	CD	ARG	1097	100.215	31.021	139.479	1.00	36.76
ATOM	1695	NE	ARG	1097	98.950	31.673	139.134	1.00	40.51
ATOM	1696	CZ	ARG	1097	97.952	31.895	139.989	1.00	40.70
ATOM	1697	NH1	ARG	1097	98.069	31.519	141.262	1.00	40.49
ATOM	1698	NH2	ARG	1097	96.835	32.482	139.565	1.00	38.85
ATOM	1699	C	ARG	1097	100.684	26.845	138.656	1.00	25.40
ATOM	1700	O	ARG	1097	101.218	26.930	137.557	1.00	25.12
ATOM	1701	N	LEU	1098	99.501	26.291	138.847	1.00	24.84
ATOM	1702	CA	LEU	1098	98.699	25.771	137.765	1.00	24.97
ATOM	1703	CB	LEU	1098	97.751	24.707	138.332	1.00	23.50
ATOM	1704	CG	LEU	1098	96.656	24.214	137.391	1.00	23.67
ATOM	1705	CD1	LEU	1098	97.270	23.896	136.041	1.00	23.41
ATOM	1706	CD2	LEU	1098	95.951	23.008	137.988	1.00	22.84
ATOM	1707	C	LEU	1098	97.939	26.994	137.227	1.00	25.39
ATOM	1708	O	LEU	1098	96.951	27.446	137.818	1.00	25.72
ATOM	1709	N	GLU	1099	98.419	27.546	136.118	1.00	25.13
ATOM	1710	CA	GLU	1099	97.805	28.732	135.530	1.00	24.71
ATOM	1711	CB	GLU	1099	98.692	29.296	134.429	1.00	22.34
ATOM	1712	CG	GLU	1099	100.048	29.735	134.924	1.00	21.66
ATOM	1713	CD	GLU	1099	99.965	30.849	135.934	1.00	22.92
ATOM	1714	OE1	GLU	1099	101.012	31.195	136.520	1.00	22.60
ATOM	1715	OE2	GLU	1099	98.852	31.387	136.140	1.00	25.85
ATOM	1716	C	GLU	1099	96.435	28.441	134.980	1.00	25.92
ATOM	1717	O	GLU	1099	96.065	27.287	134.814	1.00	27.25
ATOM	1718	N	SER	1100	95.681	29.495	134.689	1.00	27.31
ATOM	1719	CA	SER	1100	94.330	29.326	134.169	1.00	27.39
ATOM	1720	CB	SER	1100	93.592	30.670	134.125	1.00	28.14
ATOM	1721	OG	SER	1100	94.405	31.699	133.591	1.00	31.03
ATOM	1722	C	SER	1100	94.263	28.646	132.813	1.00	26.49
ATOM	1723	O	SER	1100	93.225	28.116	132.450	1.00	28.60
ATOM	1724	N	ASN	1101	95.365	28.643	132.075	1.00	25.73
ATOM	1725	CA	ASN	1101	95.415	28.013	130.760	1.00	24.86
ATOM	1726	CB	ASN	1101	96.489	28.684	129.938	1.00	23.07
ATOM	1727	CG	ASN	1101	97.768	28.790	130.700	1.00	22.42
ATOM	1728	OD1	ASN	1101	97.889	28.230	131.790	1.00	20.74
ATOM	1729	ND2	ASN	1101	98.733	29.503	130.152	1.00	24.80
ATOM	1730	C	ASN	1101	95.781	26.545	130.902	1.00	24.40
ATOM	1731	O	ASN	1101	95.906	25.841	129.915	1.00	25.58
ATOM	1732	N	ASN	1102	96.005	26.109	132.132	1.00	23.54
ATOM	1733	CA	ASN	1102	96.354	24.731	132.411	1.00	23.40
ATOM	1734	CB	ASN	1102	95.420	23.812	131.654	1.00	26.98
ATOM	1735	CG	ASN	1102	93.998	23.998	132.080	1.00	30.54
ATOM	1736	OD1	ASN	1102	93.680	23.887	133.265	1.00	33.07

Table 6

ATOM	1737	ND2	ASN	1102	93.124	24.297	131.125	1.00	32.71
ATOM	1738	C	ASN	1102	97.803	24.331	132.180	1.00	22.35
ATOM	1739	O	ASN	1102	98.130	23.152	132.074	1.00	22.20
ATOM	1740	N	TYR	1103	98.676	25.321	132.109	1.00	21.25
ATOM	1741	CA	TYR	1103	100.098	25.064	131.960	1.00	21.42
ATOM	1742	CB	TYR	1103	100.707	25.993	130.904	1.00	21.03
ATOM	1743	CG	TYR	1103	100.594	25.458	129.486	1.00	21.58
ATOM	1744	CD1	TYR	1103	101.568	24.605	128.961	1.00	22.58
ATOM	1745	CE1	TYR	1103	101.460	24.083	127.672	1.00	22.23
ATOM	1746	CD2	TYR	1103	99.501	25.775	128.683	1.00	20.55
ATOM	1747	CE2	TYR	1103	99.383	25.257	127.390	1.00	22.04
ATOM	1748	CZ	TYR	1103	100.364	24.415	126.887	1.00	22.33
ATOM	1749	OH	TYR	1103	100.263	23.922	125.596	1.00	21.39
ATOM	1750	C	TYR	1103	100.627	25.424	133.326	1.00	21.79
ATOM	1751	O	TYR	1103	99.947	26.096	134.076	1.00	23.68
ATOM	1752	N	ASN	1104	101.819	24.971	133.669	1.00	22.54
ATOM	1753	CA	ASN	1104	102.387	25.299	134.970	1.00	23.11
ATOM	1754	CB	ASN	1104	102.982	24.061	135.641	1.00	21.78
ATOM	1755	CG	ASN	1104	101.953	23.244	136.358	1.00	19.51
ATOM	1756	OD1	ASN	1104	100.761	23.516	136.271	1.00	18.29
ATOM	1757	ND2	ASN	1104	102.408	22.228	137.075	1.00	18.41
ATOM	1758	C	ASN	1104	103.484	26.325	134.815	1.00	24.80
ATOM	1759	O	ASN	1104	104.102	26.442	133.757	1.00	25.15
ATOM	1760	N	THR	1105	103.729	27.067	135.883	1.00	25.84
ATOM	1761	CA	THR	1105	104.776	28.060	135.863	1.00	26.64
ATOM	1762	CB	THR	1105	104.186	29.483	135.731	1.00	25.73
ATOM	1763	OG1	THR	1105	103.226	29.720	136.765	1.00	27.01
ATOM	1764	CG2	THR	1105	103.513	29.634	134.389	1.00	25.56
ATOM	1765	C	THR	1105	105.588	27.909	137.141	1.00	27.82
ATOM	1766	O	THR	1105	105.038	27.824	138.242	1.00	27.80
ATOM	1767	N	TYR	1106	106.902	27.849	136.981	1.00	28.80
ATOM	1768	CA	TYR	1106	107.792	27.697	138.118	1.00	30.47
ATOM	1769	CB	TYR	1106	108.760	26.553	137.832	1.00	29.61
ATOM	1770	CG	TYR	1106	108.023	25.253	137.768	1.00	29.12
ATOM	1771	CD1	TYR	1106	107.828	24.493	138.914	1.00	30.78
ATOM	1772	CE1	TYR	1106	107.020	23.362	138.903	1.00	30.90
ATOM	1773	CD2	TYR	1106	107.397	24.846	136.597	1.00	29.58
ATOM	1774	CE2	TYR	1106	106.583	23.720	136.572	1.00	30.55
ATOM	1775	CZ	TYR	1106	106.398	22.984	137.734	1.00	31.06
ATOM	1776	OH	TYR	1106	105.583	21.881	137.740	1.00	31.17
ATOM	1777	C	TYR	1106	108.525	29.000	138.393	1.00	32.52
ATOM	1778	O	TYR	1106	109.573	29.273	137.806	1.00	33.70
ATOM	1779	N	ARG	1107	107.954	29.805	139.286	1.00	33.59
ATOM	1780	CA	ARG	1107	108.519	31.098	139.637	1.00	33.71
ATOM	1781	CB	ARG	1107	107.395	32.094	139.922	1.00	34.16
ATOM	1782	CG	ARG	1107	107.888	33.456	140.363	1.00	35.95
ATOM	1783	CD	ARG	1107	106.743	34.421	140.627	1.00	37.06
ATOM	1784	NE	ARG	1107	105.738	33.845	141.517	1.00	39.01
ATOM	1785	CZ	ARG	1107	104.896	34.553	142.264	1.00	38.49
ATOM	1786	NH1	ARG	1107	104.929	35.878	142.238	1.00	38.07
ATOM	1787	NH2	ARG	1107	104.028	33.930	143.048	1.00	38.62
ATOM	1788	C	ARG	1107	109.439	30.998	140.835	1.00	34.38
ATOM	1789	O	ARG	1107	109.050	30.486	141.882	1.00	34.01
ATOM	1790	N	SER	1108	110.662	31.498	140.678	1.00	35.71
ATOM	1791	CA	SER	1108	111.642	31.450	141.759	1.00	38.01
ATOM	1792	CB	SER	1108	112.977	32.060	141.337	1.00	39.41

Table 6

ATOM	1793	OG	SER	1108	113.881	32.099	142.438	1.00	40.69
ATOM	1794	C	SER	1108	111.161	32.180	142.991	1.00	38.82
ATOM	1795	O	SER	1108	110.839	33.369	142.932	1.00	38.18
ATOM	1796	N	ARG	1109	111.129	31.460	144.110	1.00	39.76
ATOM	1797	CA	ARG	1109	110.689	32.041	145.370	1.00	40.06
ATOM	1798	CB	ARG	1109	110.539	30.951	146.430	1.00	39.42
ATOM	1799	CG	ARG	1109	109.916	31.444	147.706	1.00	39.10
ATOM	1800	CD	ARG	1109	109.331	30.300	148.500	1.00	38.91
ATOM	1801	NE	ARG	1109	110.356	29.444	149.079	1.00	39.39
ATOM	1802	CZ	ARG	1109	110.552	29.301	150.385	1.00	40.16
ATOM	1803	NH1	ARG	1109	109.788	29.966	151.251	1.00	40.03
ATOM	1804	NH2	ARG	1109	111.505	28.486	150.824	1.00	40.40
ATOM	1805	C	ARG	1109	111.671	33.108	145.852	1.00	40.49
ATOM	1806	O	ARG	1109	111.284	34.035	146.570	1.00	39.63
ATOM	1807	N	LYS	1110	112.934	32.970	145.445	1.00	41.21
ATOM	1808	CA	LYS	1110	113.987	33.914	145.813	1.00	41.55
ATOM	1809	CB	LYS	1110	115.351	33.274	145.566	1.00	42.81
ATOM	1810	CG	LYS	1110	116.498	33.927	146.296	1.00	44.18
ATOM	1811	CD	LYS	1110	116.463	33.554	147.765	1.00	45.85
ATOM	1812	CE	LYS	1110	117.705	34.044	148.494	1.00	45.51
ATOM	1813	NZ	LYS	1110	117.731	33.606	149.913	1.00	44.54
ATOM	1814	C	LYS	1110	113.847	35.177	144.955	1.00	41.30
ATOM	1815	O	LYS	1110	113.522	36.250	145.450	1.00	41.19
ATOM	1816	N	TYR	1111	114.080	35.047	143.659	1.00	40.34
ATOM	1817	CA	TYR	1111	113.967	36.195	142.793	1.00	40.72
ATOM	1818	CB	TYR	1111	115.054	36.105	141.731	1.00	42.65
ATOM	1819	CG	TYR	1111	116.376	35.699	142.349	1.00	44.83
ATOM	1820	CD1	TYR	1111	116.894	36.390	143.441	1.00	46.11
ATOM	1821	CE1	TYR	1111	118.072	35.980	144.066	1.00	46.16
ATOM	1822	CD2	TYR	1111	117.078	34.586	141.890	1.00	45.77
ATOM	1823	CE2	TYR	1111	118.254	34.172	142.507	1.00	45.94
ATOM	1824	CZ	TYR	1111	118.741	34.872	143.595	1.00	46.79
ATOM	1825	OH	TYR	1111	119.891	34.454	144.223	1.00	48.18
ATOM	1826	C	TYR	1111	112.556	36.205	142.222	1.00	40.96
ATOM	1827	O	TYR	1111	112.338	36.113	141.009	1.00	40.93
ATOM	1828	N	THR	1112	111.611	36.345	143.150	1.00	40.69
ATOM	1829	CA	THR	1112	110.160	36.346	142.909	1.00	41.96
ATOM	1830	CB	THR	1112	109.387	37.022	144.083	1.00	42.40
ATOM	1831	OG1	THR	1112	109.881	38.349	144.294	1.00	43.03
ATOM	1832	CG2	THR	1112	109.525	36.206	145.359	1.00	43.31
ATOM	1833	C	THR	1112	109.516	36.878	141.630	1.00	41.46
ATOM	1834	O	THR	1112	108.302	36.748	141.461	1.00	41.50
ATOM	1835	N	SER	1113	110.279	37.476	140.729	1.00	41.45
ATOM	1836	CA	SER	1113	109.652	37.967	139.510	1.00	41.57
ATOM	1837	CB	SER	1113	109.912	39.459	139.332	1.00	40.56
ATOM	1838	OG	SER	1113	109.240	40.186	140.339	1.00	40.01
ATOM	1839	C	SER	1113	110.107	37.216	138.278	1.00	42.04
ATOM	1840	O	SER	1113	109.700	37.546	137.170	1.00	42.45
ATOM	1841	N	TRP	1114	110.943	36.199	138.472	1.00	42.64
ATOM	1842	CA	TRP	1114	111.442	35.415	137.348	1.00	42.72
ATOM	1843	CB	TRP	1114	112.966	35.412	137.327	1.00	44.69
ATOM	1844	CG	TRP	1114	113.565	36.761	137.407	1.00	46.18
ATOM	1845	CD2	TRP	1114	114.924	37.068	137.724	1.00	46.92
ATOM	1846	CE2	TRP	1114	115.052	38.471	137.691	1.00	46.89
ATOM	1847	CE3	TRP	1114	116.050	36.291	138.033	1.00	46.48
ATOM	1848	CD1	TRP	1114	112.939	37.952	137.195	1.00	45.40

Table 6

ATOM	1849	NE1	TRP	1114	113.824	38.985	137.365	1.00	46.95
ATOM	1850	CZ2	TRP	1114	116.256	39.117	137.959	1.00	46.46
ATOM	1851	CZ3	TRP	1114	117.245	36.929	138.298	1.00	46.25
ATOM	1852	CH2	TRP	1114	117.339	38.329	138.260	1.00	47.38
ATOM	1853	C	TRP	1114	110.958	33.976	137.355	1.00	41.32
ATOM	1854	O	TRP	1114	110.705	33.391	138.407	1.00	41.19
ATOM	1855	N	TYR	1115	110.848	33.402	136.166	1.00	40.12
ATOM	1856	CA	TYR	1115	110.392	32.033	136.042	1.00	39.14
ATOM	1857	CB	TYR	1115	109.154	31.942	135.155	1.00	40.95
ATOM	1858	CG	TYR	1115	107.946	32.713	135.625	1.00	42.57
ATOM	1859	CD1	TYR	1115	107.879	34.097	135.489	1.00	43.25
ATOM	1860	CE1	TYR	1115	106.737	34.801	135.860	1.00	43.70
ATOM	1861	CD2	TYR	1115	106.844	32.052	136.152	1.00	42.47
ATOM	1862	CE2	TYR	1115	105.705	32.741	136.525	1.00	43.45
ATOM	1863	CZ	TYR	1115	105.651	34.114	136.377	1.00	43.67
ATOM	1864	OH	TYR	1115	104.507	34.794	136.741	1.00	43.60
ATOM	1865	C	TYR	1115	111.439	31.139	135.427	1.00	37.49
ATOM	1866	O	TYR	1115	112.450	31.602	134.892	1.00	37.76
ATOM	1867	N	VAL	1116	111.183	29.841	135.514	1.00	35.40
ATOM	1868	CA	VAL	1116	112.061	28.861	134.909	1.00	33.52
ATOM	1869	CB	VAL	1116	111.905	27.491	135.565	1.00	31.20
ATOM	1870	CG1	VAL	1116	112.733	26.472	134.837	1.00	30.76
ATOM	1871	CG2	VAL	1116	112.331	27.572	137.002	1.00	31.44
ATOM	1872	C	VAL	1116	111.499	28.831	133.497	1.00	33.90
ATOM	1873	O	VAL	1116	110.276	28.797	133.309	1.00	33.24
ATOM	1874	N	ALA	1117	112.373	28.877	132.500	1.00	33.87
ATOM	1875	CA	ALA	1117	111.889	28.885	131.135	1.00	33.71
ATOM	1876	CB	ALA	1117	111.443	30.292	130.763	1.00	34.03
ATOM	1877	C	ALA	1117	112.892	28.388	130.124	1.00	33.59
ATOM	1878	O	ALA	1117	114.093	28.397	130.359	1.00	32.47
ATOM	1879	N	LEU	1118	112.375	27.954	128.984	1.00	34.46
ATOM	1880	CA	LEU	1118	113.218	27.471	127.912	1.00	36.34
ATOM	1881	CB	LEU	1118	112.948	25.988	127.631	1.00	35.80
ATOM	1882	CG	LEU	1118	113.447	24.981	128.665	1.00	35.65
ATOM	1883	CD1	LEU	1118	113.236	23.573	128.137	1.00	35.34
ATOM	1884	CD2	LEU	1118	114.919	25.224	128.955	1.00	35.14
ATOM	1885	C	LEU	1118	112.944	28.279	126.657	1.00	37.87
ATOM	1886	O	LEU	1118	111.819	28.718	126.418	1.00	37.12
ATOM	1887	N	LYS	1119	113.989	28.483	125.868	1.00	40.57
ATOM	1888	CA	LYS	1119	113.874	29.216	124.621	1.00	43.52
ATOM	1889	CB	LYS	1119	115.246	29.756	124.202	1.00	46.49
ATOM	1890	CG	LYS	1119	115.889	30.729	125.193	1.00	49.41
ATOM	1891	CD	LYS	1119	117.235	31.252	124.667	1.00	51.97
ATOM	1892	CE	LYS	1119	118.247	30.117	124.423	1.00	54.07
ATOM	1893	NZ	LYS	1119	119.659	30.590	124.192	1.00	53.57
ATOM	1894	C	LYS	1119	113.370	28.238	123.571	1.00	43.83
ATOM	1895	O	LYS	1119	113.392	27.030	123.789	1.00	43.14
ATOM	1896	N	ARG	1120	112.922	28.752	122.433	1.00	45.00
ATOM	1897	CA	ARG	1120	112.433	27.891	121.354	1.00	46.36
ATOM	1898	CB	ARG	1120	111.674	28.734	120.323	1.00	47.22
ATOM	1899	CG	ARG	1120	112.434	29.992	119.949	1.00	47.48
ATOM	1900	CD	ARG	1120	111.698	30.906	118.988	1.00	47.23
ATOM	1901	NE	ARG	1120	112.375	32.199	118.949	1.00	47.79
ATOM	1902	CZ	ARG	1120	112.119	33.166	118.079	1.00	48.69
ATOM	1903	NH1	ARG	1120	111.192	33.001	117.146	1.00	50.68
ATOM	1904	NH2	ARG	1120	112.786	34.307	118.151	1.00	49.30

Table 6

ATOM	1905	C	ARG	1120	113.626	27.224	120.678	1.00	46.59
ATOM	1906	O	ARG	1120	113.477	26.494	119.700	1.00	47.90
ATOM	1907	N	THR	1121	114.808	27.481	121.220	1.00	45.62
ATOM	1908	CA	THR	1121	116.043	26.946	120.685	1.00	45.18
ATOM	1909	CB	THR	1121	117.096	28.037	120.658	1.00	47.00
ATOM	1910	OG1	THR	1121	117.243	28.581	121.978	1.00	47.87
ATOM	1911	CG2	THR	1121	116.675	29.144	119.709	1.00	48.44
ATOM	1912	C	THR	1121	116.588	25.785	121.505	1.00	44.47
ATOM	1913	O	THR	1121	117.621	25.216	121.167	1.00	43.67
ATOM	1914	N	GLY	1122	115.914	25.448	122.597	1.00	44.23
ATOM	1915	CA	GLY	1122	116.378	24.345	123.420	1.00	44.06
ATOM	1916	C	GLY	1122	117.257	24.718	124.603	1.00	44.26
ATOM	1917	O	GLY	1122	117.724	23.845	125.336	1.00	43.92
ATOM	1918	N	GLN	1123	117.496	26.009	124.792	1.00	44.58
ATOM	1919	CA	GLN	1123	118.314	26.462	125.903	1.00	45.08
ATOM	1920	CB	GLN	1123	119.447	27.352	125.391	1.00	46.52
ATOM	1921	CG	GLN	1123	120.503	26.603	124.608	1.00	48.98
ATOM	1922	CD	GLN	1123	121.063	25.421	125.393	1.00	52.53
ATOM	1923	OE1	GLN	1123	121.477	25.561	126.547	1.00	55.31
ATOM	1924	NE2	GLN	1123	121.075	24.250	124.768	1.00	53.43
ATOM	1925	C	GLN	1123	117.406	27.237	126.828	1.00	44.24
ATOM	1926	O	GLN	1123	116.365	27.733	126.393	1.00	43.79
ATOM	1927	N	TYR	1124	117.781	27.351	128.095	1.00	43.32
ATOM	1928	CA	TYR	1124	116.926	28.078	129.014	1.00	43.63
ATOM	1929	CB	TYR	1124	117.378	27.845	130.444	1.00	43.93
ATOM	1930	CG	TYR	1124	118.702	28.462	130.800	1.00	45.08
ATOM	1931	CD1	TYR	1124	118.810	29.834	131.055	1.00	45.15
ATOM	1932	CE1	TYR	1124	120.015	30.398	131.480	1.00	45.60
ATOM	1933	CD2	TYR	1124	119.839	27.664	130.965	1.00	45.30
ATOM	1934	CE2	TYR	1124	121.051	28.217	131.387	1.00	45.76
ATOM	1935	CZ	TYR	1124	121.129	29.584	131.647	1.00	45.95
ATOM	1936	OH	TYR	1124	122.313	30.125	132.091	1.00	46.50
ATOM	1937	C	TYR	1124	116.924	29.561	128.694	1.00	44.09
ATOM	1938	O	TYR	1124	117.623	30.007	127.791	1.00	43.93
ATOM	1939	N	LYS	1125	116.120	30.318	129.431	1.00	45.08
ATOM	1940	CA	LYS	1125	116.021	31.759	129.237	1.00	45.69
ATOM	1941	CB	LYS	1125	114.638	32.138	128.757	1.00	47.45
ATOM	1942	CG	LYS	1125	114.513	33.591	128.391	1.00	51.87
ATOM	1943	CD	LYS	1125	113.087	33.908	127.989	1.00	55.02
ATOM	1944	CE	LYS	1125	112.509	32.801	127.120	1.00	56.51
ATOM	1945	NZ	LYS	1125	113.491	32.290	126.111	1.00	57.79
ATOM	1946	C	LYS	1125	116.270	32.451	130.558	1.00	45.66
ATOM	1947	O	LYS	1125	115.652	32.105	131.568	1.00	46.25
ATOM	1948	N	LEU	1126	117.166	33.434	130.556	1.00	45.63
ATOM	1949	CA	LEU	1126	117.483	34.154	131.779	1.00	44.89
ATOM	1950	CB	LEU	1126	118.397	35.337	131.470	1.00	45.08
ATOM	1951	CG	LEU	1126	119.805	34.879	131.076	1.00	45.49
ATOM	1952	CD1	LEU	1126	120.710	36.090	130.900	1.00	44.77
ATOM	1953	CD2	LEU	1126	120.363	33.944	132.155	1.00	44.32
ATOM	1954	C	LEU	1126	116.223	34.622	132.492	1.00	44.51
ATOM	1955	O	LEU	1126	115.379	35.292	131.899	1.00	43.78
ATOM	1956	N	GLY	1127	116.092	34.246	133.762	1.00	44.39
ATOM	1957	CA	GLY	1127	114.928	34.643	134.529	1.00	44.48
ATOM	1958	C	GLY	1127	114.696	36.122	134.340	1.00	45.13
ATOM	1959	O	GLY	1127	113.572	36.572	134.144	1.00	45.43
ATOM	1960	N	SER	1128	115.783	36.878	134.394	1.00	46.06

Table 6

ATOM	1961	CA	SER	1128	115.741	38.321	134.212	1.00	47.14
ATOM	1962	CB	SER	1128	117.170	38.865	134.190	1.00	48.37
ATOM	1963	OG	SER	1128	117.981	38.083	133.323	1.00	50.04
ATOM	1964	C	SER	1128	115.036	38.702	132.913	1.00	47.38
ATOM	1965	O	SER	1128	114.670	39.864	132.717	1.00	48.31
ATOM	1966	N	LYS	1129	114.862	37.723	132.027	1.00	47.45
ATOM	1967	CA	LYS	1129	114.213	37.934	130.729	1.00	46.81
ATOM	1968	CB	LYS	1129	115.068	37.362	129.584	1.00	47.07
ATOM	1969	CG	LYS	1129	115.843	38.379	128.751	1.00	47.89
ATOM	1970	CD	LYS	1129	115.787	38.062	127.237	1.00	48.45
ATOM	1971	CE	LYS	1129	116.364	36.686	126.873	1.00	48.23
ATOM	1972	NZ	LYS	1129	116.321	36.413	125.406	1.00	47.29
ATOM	1973	C	LYS	1129	112.842	37.271	130.660	1.00	46.09
ATOM	1974	O	LYS	1129	112.156	37.379	129.644	1.00	46.51
ATOM	1975	N	THR	1130	112.450	36.576	131.725	1.00	44.67
ATOM	1976	CA	THR	1130	111.161	35.881	131.754	1.00	43.50
ATOM	1977	CB	THR	1130	111.166	34.743	132.768	1.00	44.14
ATOM	1978	OG1	THR	1130	111.272	35.291	134.087	1.00	45.49
ATOM	1979	CG2	THR	1130	112.344	33.816	132.514	1.00	44.12
ATOM	1980	C	THR	1130	110.022	36.814	132.117	1.00	41.64
ATOM	1981	O	THR	1130	110.242	37.845	132.730	1.00	41.80
ATOM	1982	N	GLY	1131	108.804	36.444	131.740	1.00	40.73
ATOM	1983	CA	GLY	1131	107.657	37.285	132.032	1.00	40.05
ATOM	1984	C	GLY	1131	106.308	36.611	131.838	1.00	40.05
ATOM	1985	O	GLY	1131	106.158	35.741	130.979	1.00	39.10
ATOM	1986	N	PRO	1132	105.293	37.029	132.611	1.00	40.35
ATOM	1987	CD	PRO	1132	105.371	38.307	133.333	1.00	40.07
ATOM	1988	CA	PRO	1132	103.908	36.533	132.618	1.00	40.62
ATOM	1989	CB	PRO	1132	103.148	37.621	133.373	1.00	39.90
ATOM	1990	CG	PRO	1132	103.978	38.841	133.150	1.00	40.34
ATOM	1991	C	PRO	1132	103.263	36.203	131.275	1.00	40.73
ATOM	1992	O	PRO	1132	102.640	35.151	131.129	1.00	41.94
ATOM	1993	N	GLY	1133	103.400	37.086	130.295	1.00	40.65
ATOM	1994	CA	GLY	1133	102.800	36.813	129.001	1.00	40.72
ATOM	1995	C	GLY	1133	103.587	35.877	128.091	1.00	40.28
ATOM	1996	O	GLY	1133	103.111	35.536	127.007	1.00	40.90
ATOM	1997	N	GLN	1134	104.771	35.443	128.523	1.00	39.26
ATOM	1998	CA	GLN	1134	105.617	34.568	127.708	1.00	38.73
ATOM	1999	CB	GLN	1134	107.073	34.670	128.167	1.00	39.96
ATOM	2000	CG	GLN	1134	107.705	36.024	127.933	1.00	41.43
ATOM	2001	CD	GLN	1134	109.218	35.975	128.005	1.00	42.47
ATOM	2002	OE1	GLN	1134	109.871	35.256	127.237	1.00	43.63
ATOM	2003	NE2	GLN	1134	109.787	36.743	128.924	1.00	42.75
ATOM	2004	C	GLN	1134	105.239	33.090	127.630	1.00	38.46
ATOM	2005	O	GLN	1134	104.686	32.513	128.576	1.00	38.92
ATOM	2006	N	LYS	1135	105.570	32.491	126.487	1.00	37.04
ATOM	2007	CA	LYS	1135	105.315	31.086	126.197	1.00	35.96
ATOM	2008	CB	LYS	1135	105.212	30.899	124.679	1.00	36.41
ATOM	2009	CG	LYS	1135	105.119	29.460	124.192	1.00	38.29
ATOM	2010	CD	LYS	1135	105.087	29.400	122.659	1.00	39.86
ATOM	2011	CE	LYS	1135	105.142	27.959	122.134	1.00	39.82
ATOM	2012	NZ	LYS	1135	105.459	27.863	120.671	1.00	39.42
ATOM	2013	C	LYS	1135	106.443	30.226	126.761	1.00	35.48
ATOM	2014	O	LYS	1135	106.263	29.034	126.997	1.00	35.40
ATOM	2015	N	ALA	1136	107.602	30.834	126.992	1.00	34.91
ATOM	2016	CA	ALA	1136	108.746	30.091	127.518	1.00	34.69

Table 6

ATOM	2017	CB	ALA	1136	110.020	30.921	127.415	1.00	34.51
ATOM	2018	C	ALA	1136	108.558	29.619	128.953	1.00	33.97
ATOM	2019	O	ALA	1136	109.147	28.619	129.357	1.00	33.77
ATOM	2020	N	ILE	1137	107.733	30.334	129.710	1.00	32.70
ATOM	2021	CA	ILE	1137	107.476	30.010	131.113	1.00	32.21
ATOM	2022	CB	ILE	1137	106.915	31.254	131.857	1.00	31.38
ATOM	2023	CG2	ILE	1137	107.975	32.348	131.928	1.00	30.84
ATOM	2024	CG1	ILE	1137	105.645	31.745	131.146	1.00	30.94
ATOM	2025	CD1	ILE	1137	104.820	32.734	131.927	1.00	29.44
ATOM	2026	C	ILE	1137	106.491	28.857	131.361	1.00	31.36
ATOM	2027	O	ILE	1137	106.534	28.202	132.403	1.00	32.48
ATOM	2028	N	LEU	1138	105.609	28.616	130.404	1.00	29.32
ATOM	2029	CA	LEU	1138	104.588	27.597	130.554	1.00	28.65
ATOM	2030	CB	LEU	1138	103.480	27.870	129.540	1.00	29.90
ATOM	2031	CG	LEU	1138	103.086	29.350	129.460	1.00	29.89
ATOM	2032	CD1	LEU	1138	102.268	29.600	128.209	1.00	28.56
ATOM	2033	CD2	LEU	1138	102.333	29.759	130.730	1.00	29.29
ATOM	2034	C	LEU	1138	105.090	26.172	130.414	1.00	28.55
ATOM	2035	O	LEU	1138	105.711	25.822	129.413	1.00	30.20
ATOM	2036	N	PHE	1139	104.822	25.344	131.420	1.00	27.45
ATOM	2037	CA	PHE	1139	105.247	23.948	131.368	1.00	26.67
ATOM	2038	CB	PHE	1139	106.353	23.650	132.377	1.00	27.49
ATOM	2039	CG	PHE	1139	107.670	24.280	132.044	1.00	27.20
ATOM	2040	CD1	PHE	1139	107.893	25.630	132.299	1.00	25.89
ATOM	2041	CD2	PHE	1139	108.690	23.518	131.483	1.00	27.89
ATOM	2042	CE1	PHE	1139	109.101	26.212	132.011	1.00	26.60
ATOM	2043	CE2	PHE	1139	109.913	24.088	131.184	1.00	28.43
ATOM	2044	CZ	PHE	1139	110.123	25.443	131.450	1.00	28.31
ATOM	2045	C	PHE	1139	104.094	23.003	131.624	1.00	25.43
ATOM	2046	O	PHE	1139	103.171	23.315	132.368	1.00	24.30
ATOM	2047	N	LEU	1140	104.166	21.832	131.009	1.00	24.47
ATOM	2048	CA	LEU	1140	103.123	20.840	131.156	1.00	23.19
ATOM	2049	CB	LEU	1140	102.554	20.497	129.783	1.00	22.43
ATOM	2050	CG	LEU	1140	101.042	20.378	129.638	1.00	22.70
ATOM	2051	CD1	LEU	1140	100.347	21.532	130.323	1.00	22.43
ATOM	2052	CD2	LEU	1140	100.702	20.368	128.155	1.00	23.99
ATOM	2053	C	LEU	1140	103.708	19.609	131.810	1.00	23.00
ATOM	2054	O	LEU	1140	104.572	18.943	131.252	1.00	24.30
ATOM	2055	N	PRO	1141	103.263	19.302	133.027	1.00	22.81
ATOM	2056	CD	PRO	1141	102.349	20.065	133.894	1.00	22.88
ATOM	2057	CA	PRO	1141	103.777	18.126	133.721	1.00	22.66
ATOM	2058	CB	PRO	1141	103.290	18.344	135.151	1.00	22.42
ATOM	2059	CG	PRO	1141	102.003	19.050	134.960	1.00	22.65
ATOM	2060	C	PRO	1141	103.237	16.840	133.103	1.00	23.04
ATOM	2061	O	PRO	1141	102.044	16.719	132.832	1.00	21.39
ATOM	2062	N	MET	1142	104.125	15.881	132.896	1.00	24.58
ATOM	2063	CA	MET	1142	103.757	14.606	132.310	1.00	26.08
ATOM	2064	CB	MET	1142	104.282	14.537	130.889	1.00	24.74
ATOM	2065	CG	MET	1142	103.748	15.661	130.039	1.00	23.66
ATOM	2066	SD	MET	1142	104.337	15.545	128.375	1.00	25.16
ATOM	2067	CE	MET	1142	103.295	14.240	127.721	1.00	24.74
ATOM	2068	C	MET	1142	104.311	13.457	133.129	1.00	27.87
ATOM	2069	O	MET	1142	105.429	13.518	133.635	1.00	28.66
ATOM	2070	N	SER	1143	103.520	12.401	133.246	1.00	30.37
ATOM	2071	CA	SER	1143	103.892	11.233	134.025	1.00	31.39
ATOM	2072	CB	SER	1143	102.731	10.252	134.044	1.00	32.34

Table 6

ATOM	2073	OG	SER	1143	102.373	9.911	132.717	1.00	32.97
ATOM	2074	C	SER	1143	105.138	10.521	133.522	1.00	32.02
ATOM	2075	O	SER	1143	105.568	10.697	132.379	1.00	30.87
ATOM	2076	N	ALA	1144	105.704	9.700	134.402	1.00	32.96
ATOM	2077	CA	ALA	1144	106.893	8.925	134.089	1.00	33.67
ATOM	2078	CB	ALA	1144	108.129	9.807	134.174	1.00	33.96
ATOM	2079	C	ALA	1144	107.007	7.748	135.057	1.00	34.12
ATOM	2080	O	ALA	1144	106.518	6.656	134.683	1.00	32.94
ATOM	2081	CB	MET	2149	101.053	53.171	93.062	1.00	57.58
ATOM	2082	CG	MET	2149	99.622	52.593	93.151	1.00	59.75
ATOM	2083	SD	MET	2149	98.295	53.481	92.279	1.00	60.90
ATOM	2084	CE	MET	2149	98.247	52.549	90.723	1.00	59.28
ATOM	2085	C	MET	2149	100.602	54.176	95.322	1.00	55.07
ATOM	2086	O	MET	2149	100.145	53.082	95.647	1.00	55.37
ATOM	2087	N	MET	2149	102.837	54.415	94.242	1.00	56.18
ATOM	2088	CA	MET	2149	101.360	54.347	94.000	1.00	56.33
ATOM	2089	N	PRO	2150	100.451	55.262	96.097	1.00	53.63
ATOM	2090	CD	PRO	2150	100.990	56.605	95.830	1.00	53.80
ATOM	2091	CA	PRO	2150	99.753	55.236	97.389	1.00	52.35
ATOM	2092	CB	PRO	2150	99.719	56.709	97.792	1.00	52.99
ATOM	2093	CG	PRO	2150	100.984	57.228	97.216	1.00	53.82
ATOM	2094	C	PRO	2150	98.359	54.618	97.391	1.00	50.70
ATOM	2095	O	PRO	2150	97.569	54.821	96.467	1.00	50.65
ATOM	2096	N	VAL	2151	98.073	53.870	98.453	1.00	49.03
ATOM	2097	CA	VAL	2151	96.785	53.209	98.643	1.00	47.15
ATOM	2098	CB	VAL	2151	96.776	51.794	98.067	1.00	47.39
ATOM	2099	CG1	VAL	2151	95.359	51.234	98.121	1.00	47.16
ATOM	2100	CG2	VAL	2151	97.330	51.800	96.653	1.00	48.15
ATOM	2101	C	VAL	2151	96.506	53.065	100.125	1.00	45.27
ATOM	2102	O	VAL	2151	97.367	52.602	100.875	1.00	44.84
ATOM	2103	N	ALA	2152	95.306	53.448	100.546	1.00	43.54
ATOM	2104	CA	ALA	2152	94.938	53.336	101.953	1.00	43.04
ATOM	2105	CB	ALA	2152	93.699	54.174	102.247	1.00	42.03
ATOM	2106	C	ALA	2152	94.684	51.872	102.315	1.00	42.13
ATOM	2107	O	ALA	2152	94.254	51.077	101.481	1.00	42.41
ATOM	2108	N	PRO	2153	94.960	51.490	103.564	1.00	41.04
ATOM	2109	CD	PRO	2153	95.360	52.284	104.734	1.00	41.11
ATOM	2110	CA	PRO	2153	94.726	50.099	103.936	1.00	40.71
ATOM	2111	CB	PRO	2153	95.118	50.066	105.408	1.00	40.77
ATOM	2112	CG	PRO	2153	94.820	51.449	105.862	1.00	41.38
ATOM	2113	C	PRO	2153	93.280	49.704	103.691	1.00	40.37
ATOM	2114	O	PRO	2153	92.366	50.478	103.947	1.00	40.64
ATOM	2115	N	TYR	2154	93.080	48.497	103.180	1.00	39.94
ATOM	2116	CA	TYR	2154	91.740	48.016	102.894	1.00	40.42
ATOM	2117	CB	TYR	2154	91.394	48.289	101.428	1.00	42.56
ATOM	2118	CG	TYR	2154	92.311	47.597	100.447	1.00	45.15
ATOM	2119	CD1	TYR	2154	93.656	47.944	100.357	1.00	46.86
ATOM	2120	CE1	TYR	2154	94.518	47.266	99.494	1.00	48.33
ATOM	2121	CD2	TYR	2154	91.845	46.559	99.642	1.00	45.83
ATOM	2122	CE2	TYR	2154	92.697	45.876	98.775	1.00	46.76
ATOM	2123	CZ	TYR	2154	94.030	46.230	98.711	1.00	47.85
ATOM	2124	OH	TYR	2154	94.884	45.524	97.898	1.00	49.09
ATOM	2125	C	TYR	2154	91.593	46.523	103.195	1.00	39.88
ATOM	2126	O	TYR	2154	92.564	45.766	103.153	1.00	38.80
ATOM	2127	N	TRP	2155	90.367	46.110	103.499	1.00	38.54
ATOM	2128	CA	TRP	2155	90.070	44.724	103.809	1.00	37.07

Table 6

ATOM	2129	CB	TRP	2155	88.639	44.624	104.319	1.00	35.60
ATOM	2130	CG	TRP	2155	88.409	45.458	105.518	1.00	34.08
ATOM	2131	CD2	TRP	2155	89.249	45.540	106.672	1.00	33.12
ATOM	2132	CE2	TRP	2155	88.632	46.434	107.574	1.00	33.83
ATOM	2133	CE3	TRP	2155	90.462	44.945	107.035	1.00	32.00
ATOM	2134	CD1	TRP	2155	87.348	46.282	105.753	1.00	33.78
ATOM	2135	NE1	TRP	2155	87.473	46.872	106.986	1.00	33.15
ATOM	2136	CZ2	TRP	2155	89.191	46.745	108.823	1.00	33.85
ATOM	2137	CZ3	TRP	2155	91.017	45.256	108.272	1.00	32.16
ATOM	2138	CH2	TRP	2155	90.381	46.148	109.151	1.00	32.30
ATOM	2139	C	TRP	2155	90.219	43.879	102.557	1.00	37.57
ATOM	2140	O	TRP	2155	89.580	44.161	101.544	1.00	37.17
ATOM	2141	N	THR	2156	91.053	42.845	102.623	1.00	37.89
ATOM	2142	CA	THR	2156	91.263	41.963	101.479	1.00	38.70
ATOM	2143	CB	THR	2156	92.707	41.387	101.449	1.00	38.01
ATOM	2144	OG1	THR	2156	92.982	40.682	102.665	1.00	36.69
ATOM	2145	CG2	THR	2156	93.720	42.496	101.295	1.00	38.03
ATOM	2146	C	THR	2156	90.272	40.806	101.485	1.00	40.73
ATOM	2147	O	THR	2156	89.873	40.329	100.434	1.00	40.95
ATOM	2148	N	SER	2157	89.875	40.359	102.673	1.00	43.95
ATOM	2149	CA	SER	2157	88.920	39.254	102.812	1.00	47.06
ATOM	2150	CB	SER	2157	89.622	38.009	103.352	1.00	46.16
ATOM	2151	OG	SER	2157	90.642	37.586	102.471	1.00	46.00
ATOM	2152	C	SER	2157	87.819	39.678	103.774	1.00	49.00
ATOM	2153	O	SER	2157	87.689	39.143	104.869	1.00	49.66
ATOM	2154	N	PRO	2158	86.992	40.631	103.353	1.00	50.85
ATOM	2155	CD	PRO	2158	86.797	40.916	101.923	1.00	51.12
ATOM	2156	CA	PRO	2158	85.883	41.179	104.131	1.00	52.38
ATOM	2157	CB	PRO	2158	85.188	42.080	103.130	1.00	52.28
ATOM	2158	CG	PRO	2158	85.334	41.288	101.877	1.00	52.37
ATOM	2159	C	PRO	2158	84.922	40.154	104.692	1.00	53.86
ATOM	2160	O	PRO	2158	84.401	40.326	105.796	1.00	53.93
ATOM	2161	N	GLU	2159	84.682	39.095	103.921	1.00	55.27
ATOM	2162	CA	GLU	2159	83.731	38.062	104.322	1.00	56.66
ATOM	2163	CB	GLU	2159	83.480	37.080	103.172	1.00	58.65
ATOM	2164	CG	GLU	2159	82.250	36.186	103.394	1.00	62.88
ATOM	2165	CD	GLU	2159	81.955	35.237	102.220	1.00	65.39
ATOM	2166	OE1	GLU	2159	81.698	35.732	101.095	1.00	65.81
ATOM	2167	OE2	GLU	2159	81.977	33.995	102.422	1.00	66.67
ATOM	2168	C	GLU	2159	84.132	37.296	105.567	1.00	56.11
ATOM	2169	O	GLU	2159	83.274	36.950	106.384	1.00	56.78
ATOM	2170	N	LYS	2160	85.423	37.025	105.721	1.00	54.57
ATOM	2171	CA	LYS	2160	85.854	36.311	106.908	1.00	53.84
ATOM	2172	CB	LYS	2160	87.172	35.567	106.657	1.00	55.32
ATOM	2173	CG	LYS	2160	88.375	36.432	106.353	1.00	57.32
ATOM	2174	CD	LYS	2160	89.645	35.584	106.283	1.00	57.82
ATOM	2175	CE	LYS	2160	89.594	34.570	105.150	1.00	59.01
ATOM	2176	NZ	LYS	2160	90.778	33.672	105.173	1.00	62.14
ATOM	2177	C	LYS	2160	85.966	37.257	108.113	1.00	52.94
ATOM	2178	O	LYS	2160	86.763	37.041	109.029	1.00	52.74
ATOM	2179	N	MET	2161	85.144	38.304	108.104	1.00	51.47
ATOM	2180	CA	MET	2161	85.104	39.283	109.187	1.00	49.13
ATOM	2181	CB	MET	2161	85.700	40.610	108.736	1.00	49.15
ATOM	2182	CG	MET	2161	87.121	40.500	108.241	1.00	49.16
ATOM	2183	SD	MET	2161	87.834	42.120	107.942	1.00	49.46
ATOM	2184	CE	MET	2161	88.397	42.506	109.578	1.00	50.63

Table 6

ATOM	2185	C	MET	2161	83.650	39.484	109.569	1.00	47.71
ATOM	2186	O	MET	2161	83.321	40.305	110.422	1.00	46.77
ATOM	2187	N	GLU	2162	82.789	38.707	108.928	1.00	46.49
ATOM	2188	CA	GLU	2162	81.362	38.763	109.154	1.00	46.30
ATOM	2189	CB	GLU	2162	80.680	37.832	108.164	1.00	48.00
ATOM	2190	CG	GLU	2162	79.214	38.119	107.992	1.00	51.96
ATOM	2191	CD	GLU	2162	78.966	39.454	107.321	1.00	54.10
ATOM	2192	OE1	GLU	2162	79.457	40.479	107.846	1.00	55.94
ATOM	2193	OE2	GLU	2162	78.284	39.475	106.268	1.00	56.14
ATOM	2194	C	GLU	2162	80.944	38.398	110.582	1.00	45.40
ATOM	2195	O	GLU	2162	80.121	39.081	111.190	1.00	45.60
ATOM	2196	N	LYS	2163	81.506	37.319	111.118	1.00	44.38
ATOM	2197	CA	LYS	2163	81.153	36.896	112.468	1.00	42.97
ATOM	2198	CB	LYS	2163	81.607	35.459	112.747	1.00	43.63
ATOM	2199	CG	LYS	2163	81.071	34.923	114.078	1.00	43.85
ATOM	2200	CD	LYS	2163	81.675	33.576	114.468	1.00	44.67
ATOM	2201	CE	LYS	2163	83.171	33.672	114.728	1.00	44.08
ATOM	2202	NZ	LYS	2163	83.546	34.722	115.741	1.00	45.08
ATOM	2203	C	LYS	2163	81.759	37.817	113.511	1.00	42.14
ATOM	2204	O	LYS	2163	82.889	37.607	113.956	1.00	41.65
ATOM	2205	N	LYS	2164	80.993	38.830	113.911	1.00	41.38
ATOM	2206	CA	LYS	2164	81.459	39.791	114.907	1.00	40.83
ATOM	2207	CB	LYS	2164	80.715	41.121	114.766	1.00	42.68
ATOM	2208	CG	LYS	2164	81.076	41.904	113.502	1.00	45.26
ATOM	2209	CD	LYS	2164	81.126	43.406	113.792	1.00	47.67
ATOM	2210	CE	LYS	2164	81.036	44.253	112.519	1.00	47.25
ATOM	2211	NZ	LYS	2164	79.682	44.252	111.886	1.00	48.33
ATOM	2212	C	LYS	2164	81.372	39.314	116.354	1.00	39.23
ATOM	2213	O	LYS	2164	82.065	39.846	117.222	1.00	39.43
ATOM	2214	N	LEU	2165	80.522	38.324	116.619	1.00	36.91
ATOM	2215	CA	LEU	2165	80.391	37.790	117.969	1.00	33.81
ATOM	2216	CB	LEU	2165	78.939	37.752	118.420	1.00	32.68
ATOM	2217	CG	LEU	2165	78.777	36.988	119.740	1.00	30.79
ATOM	2218	CD1	LEU	2165	79.495	37.744	120.834	1.00	29.86
ATOM	2219	CD2	LEU	2165	77.310	36.829	120.098	1.00	29.83
ATOM	2220	C	LEU	2165	80.925	36.382	118.059	1.00	32.95
ATOM	2221	O	LEU	2165	80.433	35.485	117.381	1.00	31.95
ATOM	2222	N	HIS	2166	81.929	36.184	118.902	1.00	32.94
ATOM	2223	CA	HIS	2166	82.482	34.863	119.074	1.00	33.18
ATOM	2224	CB	HIS	2166	83.967	34.837	118.748	1.00	38.15
ATOM	2225	CG	HIS	2166	84.471	33.461	118.447	1.00	44.40
ATOM	2226	CD2	HIS	2166	83.813	32.337	118.067	1.00	45.92
ATOM	2227	ND1	HIS	2166	85.801	33.110	118.548	1.00	47.16
ATOM	2228	CE1	HIS	2166	85.940	31.829	118.249	1.00	48.42
ATOM	2229	NE2	HIS	2166	84.748	31.337	117.953	1.00	47.24
ATOM	2230	C	HIS	2166	82.249	34.367	120.487	1.00	30.67
ATOM	2231	O	HIS	2166	82.909	34.791	121.428	1.00	29.79
ATOM	2232	N	ALA	2167	81.281	33.469	120.625	1.00	29.14
ATOM	2233	CA	ALA	2167	80.946	32.898	121.914	1.00	27.52
ATOM	2234	CB	ALA	2167	79.423	32.832	122.095	1.00	26.36
ATOM	2235	C	ALA	2167	81.553	31.511	121.912	1.00	26.95
ATOM	2236	O	ALA	2167	81.368	30.742	120.965	1.00	26.26
ATOM	2237	N	VAL	2168	82.294	31.206	122.971	1.00	25.92
ATOM	2238	CA	VAL	2168	82.954	29.921	123.100	1.00	24.85
ATOM	2239	CB	VAL	2168	84.389	30.007	122.556	1.00	25.27
ATOM	2240	CG1	VAL	2168	84.377	30.434	121.101	1.00	25.08

Table 6

ATOM	2241	CG2	VAL	2168	85.198	30.996	123.390	1.00	24.21
ATOM	2242	C	VAL	2168	83.058	29.492	124.559	1.00	24.37
ATOM	2243	O	VAL	2168	82.950	30.312	125.465	1.00	24.58
ATOM	2244	N	PRO	2169	83.241	28.186	124.805	1.00	23.79
ATOM	2245	CD	PRO	2169	83.022	27.050	123.895	1.00	22.95
ATOM	2246	CA	PRO	2169	83.371	27.732	126.193	1.00	23.24
ATOM	2247	CB	PRO	2169	83.049	26.241	126.097	1.00	21.71
ATOM	2248	CG	PRO	2169	83.503	25.889	124.721	1.00	22.73
ATOM	2249	C	PRO	2169	84.826	28.019	126.581	1.00	23.62
ATOM	2250	O	PRO	2169	85.687	28.147	125.709	1.00	22.49
ATOM	2251	N	ALA	2170	85.110	28.121	127.873	1.00	24.54
ATOM	2252	CA	ALA	2170	86.466	28.446	128.309	1.00	25.37
ATOM	2253	CB	ALA	2170	86.532	28.488	129.830	1.00	25.45
ATOM	2254	C	ALA	2170	87.523	27.504	127.781	1.00	25.81
ATOM	2255	O	ALA	2170	87.228	26.370	127.423	1.00	26.77
ATOM	2256	N	ALA	2171	88.756	28.001	127.749	1.00	26.06
ATOM	2257	CA	ALA	2171	89.933	27.266	127.302	1.00	26.68
ATOM	2258	CB	ALA	2171	89.954	25.877	127.885	1.00	26.19
ATOM	2259	C	ALA	2171	90.058	27.185	125.806	1.00	28.23
ATOM	2260	O	ALA	2171	91.168	27.056	125.275	1.00	29.90
ATOM	2261	N	LYS	2172	88.937	27.256	125.108	1.00	28.87
ATOM	2262	CA	LYS	2172	89.016	27.164	123.664	1.00	29.95
ATOM	2263	CB	LYS	2172	87.632	27.295	123.034	1.00	31.07
ATOM	2264	CG	LYS	2172	87.607	26.846	121.584	1.00	32.86
ATOM	2265	CD	LYS	2172	86.196	26.624	121.097	1.00	33.53
ATOM	2266	CE	LYS	2172	86.242	26.136	119.681	1.00	34.62
ATOM	2267	NZ	LYS	2172	87.076	27.064	118.858	1.00	37.40
ATOM	2268	C	LYS	2172	89.950	28.256	123.159	1.00	29.64
ATOM	2269	O	LYS	2172	90.022	29.327	123.749	1.00	29.37
ATOM	2270	N	THR	2173	90.693	27.960	122.096	1.00	29.36
ATOM	2271	CA	THR	2173	91.616	28.929	121.503	1.00	28.42
ATOM	2272	CB	THR	2173	92.679	28.248	120.603	1.00	28.14
ATOM	2273	OG1	THR	2173	93.569	27.471	121.407	1.00	29.92
ATOM	2274	CG2	THR	2173	93.474	29.277	119.831	1.00	26.11
ATOM	2275	C	THR	2173	90.814	29.856	120.610	1.00	28.51
ATOM	2276	O	THR	2173	89.989	29.402	119.815	1.00	27.97
ATOM	2277	N	VAL	2174	91.054	31.154	120.737	1.00	29.34
ATOM	2278	CA	VAL	2174	90.340	32.124	119.921	1.00	30.30
ATOM	2279	CB	VAL	2174	89.595	33.149	120.781	1.00	30.41
ATOM	2280	CG1	VAL	2174	88.985	34.203	119.892	1.00	31.26
ATOM	2281	CG2	VAL	2174	88.512	32.463	121.584	1.00	30.49
ATOM	2282	C	VAL	2174	91.312	32.875	119.037	1.00	30.86
ATOM	2283	O	VAL	2174	92.387	33.259	119.476	1.00	31.22
ATOM	2284	N	LYS	2175	90.911	33.086	117.792	1.00	31.57
ATOM	2285	CA	LYS	2175	91.727	33.785	116.816	1.00	33.31
ATOM	2286	CB	LYS	2175	92.308	32.771	115.823	1.00	35.27
ATOM	2287	CG	LYS	2175	92.892	33.378	114.550	1.00	38.22
ATOM	2288	CD	LYS	2175	93.420	32.294	113.610	1.00	41.78
ATOM	2289	CE	LYS	2175	94.239	32.888	112.452	1.00	44.24
ATOM	2290	NZ	LYS	2175	94.879	31.850	111.566	1.00	45.00
ATOM	2291	C	LYS	2175	90.878	34.807	116.061	1.00	34.00
ATOM	2292	O	LYS	2175	89.881	34.445	115.437	1.00	33.89
ATOM	2293	N	PHE	2176	91.272	36.078	116.128	1.00	34.33
ATOM	2294	CA	PHE	2176	90.570	37.154	115.428	1.00	34.12
ATOM	2295	CB	PHE	2176	90.262	38.304	116.389	1.00	32.91
ATOM	2296	CG	PHE	2176	89.290	37.946	117.466	1.00	31.94

Table 6

ATOM	2297	CD1	PHE	2176	87.994	37.574	117.152	1.00	30.90
ATOM	2298	CD2	PHE	2176	89.671	37.971	118.797	1.00	31.99
ATOM	2299	CE1	PHE	2176	87.091	37.231	118.148	1.00	31.11
ATOM	2300	CE2	PHE	2176	88.770	37.626	119.806	1.00	31.88
ATOM	2301	CZ	PHE	2176	87.479	37.255	119.478	1.00	30.39
ATOM	2302	C	PHE	2176	91.485	37.652	114.318	1.00	34.66
ATOM	2303	O	PHE	2176	92.662	37.941	114.570	1.00	34.60
ATOM	2304	N	LYS	2177	90.956	37.753	113.099	1.00	34.79
ATOM	2305	CA	LYS	2177	91.759	38.212	111.967	1.00	35.78
ATOM	2306	CB	LYS	2177	91.971	37.064	110.980	1.00	36.77
ATOM	2307	CG	LYS	2177	90.722	36.268	110.696	1.00	39.23
ATOM	2308	CD	LYS	2177	91.062	34.929	110.073	1.00	41.52
ATOM	2309	CE	LYS	2177	89.818	34.068	109.929	1.00	44.06
ATOM	2310	NZ	LYS	2177	90.138	32.776	109.261	1.00	45.50
ATOM	2311	C	LYS	2177	91.181	39.408	111.231	1.00	35.77
ATOM	2312	O	LYS	2177	89.969	39.596	111.179	1.00	35.34
ATOM	2313	N	CYS	2178	92.070	40.219	110.668	1.00	35.64
ATOM	2314	CA	CYS	2178	91.669	41.396	109.915	1.00	35.78
ATOM	2315	C	CYS	2178	92.463	41.503	108.623	1.00	37.33
ATOM	2316	O	CYS	2178	93.258	42.428	108.432	1.00	37.67
ATOM	2317	CB	CYS	2178	91.852	42.656	110.752	1.00	34.60
ATOM	2318	SG	CYS	2178	90.535	42.925	111.984	1.00	35.18
ATOM	2319	N	PRO	2179	92.247	40.548	107.711	1.00	38.50
ATOM	2320	CD	PRO	2179	91.225	39.495	107.822	1.00	39.46
ATOM	2321	CA	PRO	2179	92.911	40.480	106.410	1.00	39.04
ATOM	2322	CB	PRO	2179	92.131	39.394	105.680	1.00	39.14
ATOM	2323	CG	PRO	2179	91.673	38.511	106.779	1.00	39.46
ATOM	2324	C	PRO	2179	92.763	41.801	105.706	1.00	39.02
ATOM	2325	O	PRO	2179	91.650	42.181	105.358	1.00	39.25
ATOM	2326	N	SER	2180	93.878	42.491	105.498	1.00	39.35
ATOM	2327	CA	SER	2180	93.862	43.775	104.815	1.00	40.27
ATOM	2328	CB	SER	2180	93.639	44.898	105.826	1.00	38.75
ATOM	2329	OG	SER	2180	94.704	44.963	106.746	1.00	37.59
ATOM	2330	C	SER	2180	95.163	44.019	104.054	1.00	41.09
ATOM	2331	O	SER	2180	96.146	43.309	104.248	1.00	41.62
ATOM	2332	N	SER	2181	95.153	45.025	103.184	1.00	41.78
ATOM	2333	CA	SER	2181	96.323	45.391	102.390	1.00	42.47
ATOM	2334	CB	SER	2181	96.303	44.688	101.032	1.00	41.93
ATOM	2335	OG	SER	2181	96.561	43.307	101.165	1.00	43.05
ATOM	2336	C	SER	2181	96.353	46.891	102.153	1.00	43.03
ATOM	2337	O	SER	2181	95.466	47.622	102.589	1.00	43.52
ATOM	2338	N	GLY	2182	97.371	47.344	101.435	1.00	43.41
ATOM	2339	CA	GLY	2182	97.487	48.759	101.152	1.00	44.12
ATOM	2340	C	GLY	2182	98.941	49.155	101.091	1.00	44.00
ATOM	2341	O	GLY	2182	99.760	48.631	101.837	1.00	44.97
ATOM	2342	N	THR	2183	99.268	50.089	100.210	1.00	43.66
ATOM	2343	CA	THR	2183	100.646	50.514	100.058	1.00	42.77
ATOM	2344	CB	THR	2183	101.111	50.256	98.634	1.00	41.91
ATOM	2345	OG1	THR	2183	100.517	51.224	97.769	1.00	41.95
ATOM	2346	CG2	THR	2183	100.673	48.865	98.183	1.00	41.42
ATOM	2347	C	THR	2183	100.835	51.989	100.391	1.00	42.68
ATOM	2348	O	THR	2183	100.083	52.841	99.928	1.00	43.54
ATOM	2349	N	PRO	2184	101.841	52.305	101.217	1.00	41.92
ATOM	2350	CD	PRO	2184	102.188	53.676	101.616	1.00	41.42
ATOM	2351	CA	PRO	2184	102.767	51.343	101.820	1.00	41.86
ATOM	2352	CB	PRO	2184	103.800	52.240	102.494	1.00	41.71

Table 6

ATOM	2353	CG	PRO	2184	103.000	53.442	102.863	1.00	41.80
ATOM	2354	C	PRO	2184	102.083	50.402	102.811	1.00	41.92
ATOM	2355	O	PRO	2184	101.066	50.753	103.414	1.00	42.43
ATOM	2356	N	GLN	2185	102.651	49.210	102.962	1.00	40.80
ATOM	2357	CA	GLN	2185	102.132	48.191	103.867	1.00	40.57
ATOM	2358	CB	GLN	2185	103.230	47.171	104.158	1.00	40.77
ATOM	2359	CG	GLN	2185	102.746	45.902	104.792	1.00	40.48
ATOM	2360	CD	GLN	2185	101.819	45.131	103.878	1.00	41.61
ATOM	2361	OE1	GLN	2185	101.392	44.028	104.212	1.00	43.14
ATOM	2362	NE2	GLN	2185	101.497	45.705	102.720	1.00	40.31
ATOM	2363	C	GLN	2185	101.643	48.784	105.187	1.00	40.32
ATOM	2364	O	GLN	2185	102.407	49.433	105.902	1.00	41.24
ATOM	2365	N	PRO	2186	100.360	48.569	105.529	1.00	39.44
ATOM	2366	CD	PRO	2186	99.262	48.067	104.684	1.00	39.20
ATOM	2367	CA	PRO	2186	99.851	49.121	106.790	1.00	38.75
ATOM	2368	CB	PRO	2186	98.334	49.118	106.586	1.00	38.97
ATOM	2369	CG	PRO	2186	98.123	47.966	105.662	1.00	39.83
ATOM	2370	C	PRO	2186	100.293	48.343	108.024	1.00	37.46
ATOM	2371	O	PRO	2186	100.662	47.172	107.939	1.00	38.41
ATOM	2372	N	THR	2187	100.283	49.017	109.165	1.00	36.11
ATOM	2373	CA	THR	2187	100.667	48.407	110.432	1.00	35.86
ATOM	2374	CB	THR	2187	101.258	49.448	111.378	1.00	36.05
ATOM	2375	OG1	THR	2187	100.284	50.475	111.622	1.00	35.43
ATOM	2376	CG2	THR	2187	102.499	50.062	110.771	1.00	35.70
ATOM	2377	C	THR	2187	99.419	47.825	111.097	1.00	35.74
ATOM	2378	O	THR	2187	98.309	48.332	110.902	1.00	36.38
ATOM	2379	N	LEU	2188	99.606	46.779	111.898	1.00	34.42
ATOM	2380	CA	LEU	2188	98.490	46.120	112.574	1.00	33.53
ATOM	2381	CB	LEU	2188	98.435	44.643	112.171	1.00	32.39
ATOM	2382	CG	LEU	2188	97.143	43.839	112.361	1.00	32.55
ATOM	2383	CD1	LEU	2188	97.476	42.351	112.346	1.00	31.88
ATOM	2384	CD2	LEU	2188	96.459	44.208	113.655	1.00	32.73
ATOM	2385	C	LEU	2188	98.615	46.193	114.094	1.00	33.67
ATOM	2386	O	LEU	2188	99.650	45.836	114.656	1.00	34.52
ATOM	2387	N	ARG	2189	97.566	46.652	114.764	1.00	32.45
ATOM	2388	CA	ARG	2189	97.601	46.705	116.213	1.00	31.36
ATOM	2389	CB	ARG	2189	98.046	48.098	116.694	1.00	30.49
ATOM	2390	CG	ARG	2189	97.078	49.248	116.499	1.00	31.19
ATOM	2391	CD	ARG	2189	97.797	50.576	116.766	1.00	32.99
ATOM	2392	NE	ARG	2189	96.896	51.703	117.021	1.00	34.94
ATOM	2393	CZ	ARG	2189	96.462	52.050	118.232	1.00	36.42
ATOM	2394	NH1	ARG	2189	96.857	51.349	119.289	1.00	37.29
ATOM	2395	NH2	ARG	2189	95.639	53.090	118.397	1.00	35.50
ATOM	2396	C	ARG	2189	96.226	46.303	116.751	1.00	31.00
ATOM	2397	O	ARG	2189	95.225	46.406	116.037	1.00	31.19
ATOM	2398	N	TRP	2190	96.173	45.813	117.988	1.00	29.63
ATOM	2399	CA	TRP	2190	94.905	45.382	118.571	1.00	28.95
ATOM	2400	CB	TRP	2190	94.941	43.885	118.851	1.00	27.63
ATOM	2401	CG	TRP	2190	94.984	43.058	117.625	1.00	27.16
ATOM	2402	CD2	TRP	2190	93.861	42.498	116.935	1.00	27.28
ATOM	2403	CE2	TRP	2190	94.366	41.822	115.797	1.00	28.20
ATOM	2404	CE3	TRP	2190	92.476	42.502	117.165	1.00	25.80
ATOM	2405	CD1	TRP	2190	96.086	42.713	116.907	1.00	27.06
ATOM	2406	NE1	TRP	2190	95.728	41.969	115.807	1.00	27.55
ATOM	2407	CZ2	TRP	2190	93.531	41.151	114.883	1.00	28.99
ATOM	2408	CZ3	TRP	2190	91.644	41.835	116.258	1.00	26.84

Table 6

ATOM	2409	CH2	TRP	2190	92.177	41.168	115.129	1.00	27.57
ATOM	2410	C	TRP	2190	94.509	46.108	119.841	1.00	29.55
ATOM	2411	O	TRP	2190	95.359	46.620	120.567	1.00	30.93
ATOM	2412	N	LEU	2191	93.210	46.131	120.116	1.00	29.19
ATOM	2413	CA	LEU	2191	92.697	46.803	121.304	1.00	30.59
ATOM	2414	CB	LEU	2191	92.063	48.138	120.935	1.00	29.16
ATOM	2415	CG	LEU	2191	92.931	49.249	120.379	1.00	27.44
ATOM	2416	CD1	LEU	2191	92.052	50.472	120.222	1.00	25.74
ATOM	2417	CD2	LEU	2191	94.104	49.521	121.308	1.00	27.11
ATOM	2418	C	LEU	2191	91.646	46.001	122.049	1.00	32.08
ATOM	2419	O	LEU	2191	90.678	45.521	121.453	1.00	31.85
ATOM	2420	N	LYS	2192	91.824	45.876	123.358	1.00	32.21
ATOM	2421	CA	LYS	2192	90.856	45.159	124.160	1.00	32.88
ATOM	2422	CB	LYS	2192	91.567	44.330	125.225	1.00	32.95
ATOM	2423	CG	LYS	2192	90.653	43.486	126.089	1.00	32.27
ATOM	2424	CD	LYS	2192	91.452	42.389	126.781	1.00	33.72
ATOM	2425	CE	LYS	2192	90.622	41.595	127.794	1.00	34.06
ATOM	2426	NZ	LYS	2192	91.298	40.309	128.159	1.00	34.85
ATOM	2427	C	LYS	2192	90.006	46.240	124.788	1.00	34.32
ATOM	2428	O	LYS	2192	90.506	47.043	125.564	1.00	35.63
ATOM	2429	N	ASN	2193	88.728	46.278	124.424	1.00	36.52
ATOM	2430	CA	ASN	2193	87.795	47.284	124.931	1.00	38.57
ATOM	2431	CB	ASN	2193	87.482	47.020	126.400	1.00	38.98
ATOM	2432	CG	ASN	2193	86.819	45.683	126.613	1.00	39.97
ATOM	2433	OD1	ASN	2193	85.844	45.353	125.934	1.00	40.22
ATOM	2434	ND2	ASN	2193	87.336	44.903	127.558	1.00	40.04
ATOM	2435	C	ASN	2193	88.326	48.707	124.765	1.00	39.79
ATOM	2436	O	ASN	2193	88.290	49.504	125.696	1.00	39.94
ATOM	2437	N	GLY	2194	88.823	49.019	123.573	1.00	40.67
ATOM	2438	CA	GLY	2194	89.351	50.349	123.325	1.00	40.52
ATOM	2439	C	GLY	2194	90.767	50.590	123.820	1.00	40.79
ATOM	2440	O	GLY	2194	91.576	51.183	123.117	1.00	41.69
ATOM	2441	N	LYS	2195	91.074	50.136	125.027	1.00	40.12
ATOM	2442	CA	LYS	2195	92.402	50.330	125.589	1.00	40.52
ATOM	2443	CB	LYS	2195	92.387	50.012	127.087	1.00	39.82
ATOM	2444	C	LYS	2195	93.464	49.483	124.889	1.00	41.22
ATOM	2445	O	LYS	2195	93.146	48.483	124.243	1.00	41.36
ATOM	2446	N	GLU	2196	94.725	49.893	125.024	1.00	41.29
ATOM	2447	CA	GLU	2196	95.851	49.189	124.422	1.00	41.22
ATOM	2448	CB	GLU	2196	97.128	50.014	124.548	1.00	42.15
ATOM	2449	CG	GLU	2196	98.403	49.191	124.357	1.00	42.05
ATOM	2450	CD	GLU	2196	99.644	49.865	124.928	1.00	42.46
ATOM	2451	OE1	GLU	2196	99.608	50.302	126.101	1.00	42.02
ATOM	2452	OE2	GLU	2196	100.663	49.946	124.210	1.00	43.16
ATOM	2453	C	GLU	2196	96.098	47.838	125.069	1.00	41.45
ATOM	2454	O	GLU	2196	96.266	47.740	126.277	1.00	40.77
ATOM	2455	N	PHE	2197	96.157	46.808	124.237	1.00	41.80
ATOM	2456	CA	PHE	2197	96.378	45.433	124.664	1.00	42.48
ATOM	2457	CB	PHE	2197	95.756	44.540	123.578	1.00	41.27
ATOM	2458	CG	PHE	2197	95.269	43.195	124.054	1.00	39.86
ATOM	2459	CD1	PHE	2197	94.888	42.230	123.128	1.00	38.62
ATOM	2460	CD2	PHE	2197	95.197	42.881	125.400	1.00	40.20
ATOM	2461	CE1	PHE	2197	94.449	40.974	123.528	1.00	38.94
ATOM	2462	CE2	PHE	2197	94.756	41.618	125.812	1.00	39.99
ATOM	2463	CZ	PHE	2197	94.383	40.666	124.872	1.00	39.73
ATOM	2464	C	PHE	2197	97.901	45.207	124.766	1.00	43.80

Table 6

ATOM	2465	O	PHE	2197	98.668	45.900	124.108	1.00	45.77
ATOM	2466	N	LYS	2198	98.337	44.253	125.586	1.00	44.13
ATOM	2467	CA	LYS	2198	99.768	43.928	125.739	1.00	44.71
ATOM	2468	CB	LYS	2198	100.454	44.829	126.777	1.00	45.08
ATOM	2469	CG	LYS	2198	100.915	46.175	126.239	1.00	46.46
ATOM	2470	CD	LYS	2198	101.578	47.027	127.319	1.00	48.52
ATOM	2471	CE	LYS	2198	101.944	48.421	126.776	1.00	49.18
ATOM	2472	NZ	LYS	2198	102.534	49.339	127.804	1.00	48.52
ATOM	2473	C	LYS	2198	99.898	42.477	126.183	1.00	44.72
ATOM	2474	O	LYS	2198	99.252	42.060	127.141	1.00	45.40
ATOM	2475	N	PRO	2199	100.739	41.686	125.497	1.00	43.97
ATOM	2476	CD	PRO	2199	101.524	42.007	124.298	1.00	43.28
ATOM	2477	CA	PRO	2199	100.918	40.276	125.850	1.00	43.87
ATOM	2478	CB	PRO	2199	102.173	39.901	125.084	1.00	42.82
ATOM	2479	CG	PRO	2199	101.948	40.624	123.817	1.00	42.83
ATOM	2480	C	PRO	2199	100.951	39.908	127.340	1.00	44.42
ATOM	2481	O	PRO	2199	100.379	38.888	127.728	1.00	45.33
ATOM	2482	N	ASP	2200	101.587	40.712	128.184	1.00	43.91
ATOM	2483	CA	ASP	2200	101.586	40.379	129.601	1.00	44.12
ATOM	2484	CB	ASP	2200	102.720	41.121	130.330	1.00	47.94
ATOM	2485	CG	ASP	2200	102.936	42.544	129.815	1.00	52.10
ATOM	2486	OD1	ASP	2200	101.955	43.321	129.716	1.00	54.71
ATOM	2487	OD2	ASP	2200	104.101	42.890	129.518	1.00	52.51
ATOM	2488	C	ASP	2200	100.217	40.657	130.268	1.00	42.28
ATOM	2489	O	ASP	2200	100.046	40.441	131.466	1.00	41.60
ATOM	2490	N	HIS	2201	99.243	41.113	129.484	1.00	39.83
ATOM	2491	CA	HIS	2201	97.902	41.408	129.994	1.00	38.18
ATOM	2492	CB	HIS	2201	97.095	42.252	129.000	1.00	36.78
ATOM	2493	CG	HIS	2201	97.474	43.699	128.956	1.00	35.18
ATOM	2494	CD2	HIS	2201	97.140	44.675	128.078	1.00	33.45
ATOM	2495	ND1	HIS	2201	98.255	44.300	129.920	1.00	33.71
ATOM	2496	CE1	HIS	2201	98.386	45.584	129.636	1.00	33.15
ATOM	2497	NE2	HIS	2201	97.719	45.837	128.524	1.00	33.26
ATOM	2498	C	HIS	2201	97.050	40.178	130.293	1.00	37.71
ATOM	2499	O	HIS	2201	95.958	40.307	130.842	1.00	37.87
ATOM	2500	N	ARG	2202	97.510	38.998	129.895	1.00	36.98
ATOM	2501	CA	ARG	2202	96.757	37.774	130.152	1.00	36.37
ATOM	2502	CB	ARG	2202	95.773	37.490	129.014	1.00	35.42
ATOM	2503	CG	ARG	2202	96.408	36.963	127.733	1.00	32.75
ATOM	2504	CD	ARG	2202	95.375	36.864	126.619	1.00	30.71
ATOM	2505	NE	ARG	2202	94.316	35.902	126.909	1.00	29.13
ATOM	2506	CZ	ARG	2202	94.454	34.584	126.808	1.00	30.20
ATOM	2507	NH1	ARG	2202	95.608	34.058	126.424	1.00	31.83
ATOM	2508	NH2	ARG	2202	93.435	33.784	127.070	1.00	30.13
ATOM	2509	C	ARG	2202	97.740	36.623	130.266	1.00	37.00
ATOM	2510	O	ARG	2202	98.799	36.652	129.640	1.00	35.95
ATOM	2511	N	ILE	2203	97.407	35.609	131.058	1.00	38.08
ATOM	2512	CA	ILE	2203	98.330	34.493	131.181	1.00	39.00
ATOM	2513	CB	ILE	2203	97.884	33.446	132.213	1.00	39.18
ATOM	2514	CG2	ILE	2203	96.685	32.657	131.694	1.00	38.82
ATOM	2515	CG1	ILE	2203	99.053	32.499	132.495	1.00	39.82
ATOM	2516	CD1	ILE	2203	100.275	33.187	133.083	1.00	37.47
ATOM	2517	C	ILE	2203	98.508	33.817	129.830	1.00	39.98
ATOM	2518	O	ILE	2203	97.544	33.559	129.100	1.00	40.24
ATOM	2519	N	GLY	2204	99.759	33.538	129.499	1.00	40.59
ATOM	2520	CA	GLY	2204	100.051	32.927	128.219	1.00	41.35

Table 6

ATOM	2521	C	GLY	2204	100.042	34.010	127.157	1.00	41.56
ATOM	2522	O	GLY	2204	100.469	33.789	126.025	1.00	41.20
ATOM	2523	N	GLY	2205	99.548	35.187	127.537	1.00	41.55
ATOM	2524	CA	GLY	2205	99.469	36.316	126.626	1.00	40.71
ATOM	2525	C	GLY	2205	98.821	36.028	125.281	1.00	40.50
ATOM	2526	O	GLY	2205	98.122	35.027	125.113	1.00	39.66
ATOM	2527	N	TYR	2206	99.021	36.932	124.325	1.00	40.49
ATOM	2528	CA	TYR	2206	98.482	36.723	122.993	1.00	40.63
ATOM	2529	CB	TYR	2206	97.446	37.775	122.580	1.00	39.91
ATOM	2530	CG	TYR	2206	97.850	39.221	122.748	1.00	40.02
ATOM	2531	CD1	TYR	2206	97.755	39.850	123.994	1.00	40.48
ATOM	2532	CE1	TYR	2206	98.058	41.199	124.151	1.00	39.15
ATOM	2533	CD2	TYR	2206	98.268	39.980	121.660	1.00	38.56
ATOM	2534	CE2	TYR	2206	98.576	41.332	121.805	1.00	38.64
ATOM	2535	CZ	TYR	2206	98.468	41.940	123.056	1.00	39.43
ATOM	2536	OH	TYR	2206	98.762	43.285	123.211	1.00	38.19
ATOM	2537	C	TYR	2206	99.605	36.681	121.988	1.00	41.31
ATOM	2538	O	TYR	2206	100.753	37.004	122.298	1.00	41.16
ATOM	2539	N	LYS	2207	99.264	36.247	120.784	1.00	42.04
ATOM	2540	CA	LYS	2207	100.223	36.121	119.703	1.00	43.21
ATOM	2541	CB	LYS	2207	100.465	34.647	119.398	1.00	44.52
ATOM	2542	CG	LYS	2207	101.339	34.407	118.187	1.00	47.14
ATOM	2543	CD	LYS	2207	101.051	33.041	117.596	1.00	49.53
ATOM	2544	CE	LYS	2207	101.862	32.797	116.344	1.00	50.27
ATOM	2545	NZ	LYS	2207	101.553	31.473	115.742	1.00	51.00
ATOM	2546	C	LYS	2207	99.659	36.802	118.469	1.00	43.19
ATOM	2547	O	LYS	2207	98.533	36.518	118.057	1.00	43.68
ATOM	2548	N	VAL	2208	100.432	37.704	117.877	1.00	42.85
ATOM	2549	CA	VAL	2208	99.959	38.396	116.687	1.00	42.83
ATOM	2550	CB	VAL	2208	100.080	39.937	116.819	1.00	42.12
ATOM	2551	CG1	VAL	2208	99.676	40.608	115.516	1.00	41.15
ATOM	2552	CG2	VAL	2208	99.182	40.433	117.932	1.00	41.53
ATOM	2553	C	VAL	2208	100.722	37.946	115.455	1.00	42.80
ATOM	2554	O	VAL	2208	101.942	38.056	115.396	1.00	42.90
ATOM	2555	N	ARG	2209	99.987	37.422	114.481	1.00	43.49
ATOM	2556	CA	ARG	2209	100.565	36.953	113.222	1.00	43.88
ATOM	2557	CB	ARG	2209	100.000	35.584	112.835	1.00	44.05
ATOM	2558	CG	ARG	2209	100.652	34.440	113.565	1.00	45.90
ATOM	2559	CD	ARG	2209	102.020	34.172	112.999	1.00	48.17
ATOM	2560	NE	ARG	2209	102.967	33.768	114.030	1.00	51.06
ATOM	2561	CZ	ARG	2209	104.083	33.079	113.801	1.00	53.29
ATOM	2562	NH1	ARG	2209	104.397	32.705	112.565	1.00	53.46
ATOM	2563	NH2	ARG	2209	104.891	32.765	114.807	1.00	55.10
ATOM	2564	C	ARG	2209	100.263	37.945	112.112	1.00	44.04
ATOM	2565	O	ARG	2209	99.323	37.755	111.340	1.00	43.78
ATOM	2566	N	TYR	2210	101.061	39.008	112.035	1.00	43.71
ATOM	2567	CA	TYR	2210	100.850	40.019	111.011	1.00	42.27
ATOM	2568	CB	TYR	2210	101.966	41.056	110.993	1.00	43.20
ATOM	2569	CG	TYR	2210	102.161	41.743	112.316	1.00	45.09
ATOM	2570	CD1	TYR	2210	102.831	41.103	113.358	1.00	46.50
ATOM	2571	CE1	TYR	2210	102.994	41.723	114.604	1.00	47.53
ATOM	2572	CD2	TYR	2210	101.655	43.023	112.543	1.00	45.57
ATOM	2573	CE2	TYR	2210	101.811	43.655	113.786	1.00	46.60
ATOM	2574	CZ	TYR	2210	102.482	42.997	114.811	1.00	47.26
ATOM	2575	OH	TYR	2210	102.646	43.593	116.039	1.00	47.71
ATOM	2576	C	TYR	2210	100.799	39.321	109.685	1.00	40.96

Table 6

ATOM	2577	O	TYR	2210	100.130	39.775	108.772	1.00	41.30
ATOM	2578	N	ALA	2211	101.502	38.203	109.588	1.00	40.54
ATOM	2579	CA	ALA	2211	101.521	37.428	108.357	1.00	40.16
ATOM	2580	CB	ALA	2211	102.254	36.112	108.595	1.00	40.83
ATOM	2581	C	ALA	2211	100.089	37.168	107.873	1.00	39.20
ATOM	2582	O	ALA	2211	99.832	37.054	106.678	1.00	37.66
ATOM	2583	N	THR	2212	99.158	37.073	108.814	1.00	39.40
ATOM	2584	CA	THR	2212	97.765	36.846	108.462	1.00	39.47
ATOM	2585	CB	THR	2212	97.312	35.401	108.767	1.00	40.20
ATOM	2586	OG1	THR	2212	97.752	35.004	110.077	1.00	41.45
ATOM	2587	CG2	THR	2212	97.872	34.462	107.722	1.00	40.38
ATOM	2588	C	THR	2212	96.834	37.837	109.148	1.00	38.95
ATOM	2589	O	THR	2212	95.623	37.620	109.218	1.00	38.42
ATOM	2590	N	TRP	2213	97.415	38.931	109.637	1.00	38.83
ATOM	2591	CA	TRP	2213	96.662	39.999	110.290	1.00	38.61
ATOM	2592	CB	TRP	2213	95.779	40.736	109.276	1.00	40.70
ATOM	2593	CG	TRP	2213	96.537	41.323	108.162	1.00	42.61
ATOM	2594	CD2	TRP	2213	97.098	42.634	108.118	1.00	43.58
ATOM	2595	CE2	TRP	2213	97.789	42.749	106.896	1.00	44.29
ATOM	2596	CE3	TRP	2213	97.084	43.726	108.994	1.00	43.52
ATOM	2597	CD1	TRP	2213	96.895	40.710	107.002	1.00	43.01
ATOM	2598	NE1	TRP	2213	97.650	41.558	106.233	1.00	44.09
ATOM	2599	CZ2	TRP	2213	98.461	43.916	106.526	1.00	44.49
ATOM	2600	CZ3	TRP	2213	97.750	44.883	108.627	1.00	43.51
ATOM	2601	CH2	TRP	2213	98.429	44.969	107.403	1.00	44.41
ATOM	2602	C	TRP	2213	95.774	39.442	111.371	1.00	37.32
ATOM	2603	O	TRP	2213	94.617	39.846	111.507	1.00	37.76
ATOM	2604	N	SER	2214	96.308	38.512	112.143	1.00	35.32
ATOM	2605	CA	SER	2214	95.516	37.892	113.190	1.00	33.63
ATOM	2606	CB	SER	2214	95.370	36.392	112.924	1.00	33.71
ATOM	2607	OG	SER	2214	94.681	36.144	111.720	1.00	34.61
ATOM	2608	C	SER	2214	96.104	38.058	114.572	1.00	31.52
ATOM	2609	O	SER	2214	97.281	38.396	114.736	1.00	31.05
ATOM	2610	N	ILE	2215	95.259	37.810	115.565	1.00	28.95
ATOM	2611	CA	ILE	2215	95.664	37.854	116.960	1.00	26.54
ATOM	2612	CB	ILE	2215	94.951	38.965	117.733	1.00	23.98
ATOM	2613	CG2	ILE	2215	93.471	38.938	117.434	1.00	22.03
ATOM	2614	CG1	ILE	2215	95.239	38.798	119.220	1.00	22.66
ATOM	2615	CD1	ILE	2215	94.372	39.645	120.105	1.00	23.72
ATOM	2616	C	ILE	2215	95.195	36.509	117.486	1.00	25.62
ATOM	2617	O	ILE	2215	94.132	36.024	117.090	1.00	26.30
ATOM	2618	N	ILE	2216	95.967	35.890	118.361	1.00	23.36
ATOM	2619	CA	ILE	2216	95.546	34.600	118.866	1.00	23.42
ATOM	2620	CB	ILE	2216	96.436	33.461	118.341	1.00	24.04
ATOM	2621	CG2	ILE	2216	95.658	32.164	118.362	1.00	22.84
ATOM	2622	CG1	ILE	2216	96.924	33.763	116.918	1.00	26.50
ATOM	2623	CD1	ILE	2216	96.007	33.275	115.788	1.00	27.77
ATOM	2624	C	ILE	2216	95.571	34.522	120.380	1.00	24.32
ATOM	2625	O	ILE	2216	96.529	34.949	121.037	1.00	24.53
ATOM	2626	N	MET	2217	94.503	33.971	120.935	1.00	24.28
ATOM	2627	CA	MET	2217	94.415	33.803	122.360	1.00	24.21
ATOM	2628	CB	MET	2217	93.352	34.715	122.959	1.00	24.38
ATOM	2629	CG	MET	2217	93.798	36.155	123.093	1.00	22.92
ATOM	2630	SD	MET	2217	92.463	37.174	123.666	1.00	21.81
ATOM	2631	CE	MET	2217	91.382	37.054	122.235	1.00	20.91
ATOM	2632	C	MET	2217	94.109	32.354	122.639	1.00	24.86

Table 6

ATOM	2633	O	MET	2217	93.064	31.820	122.250	1.00	24.66
ATOM	2634	N	ASP	2218	95.076	31.727	123.294	1.00	25.10
ATOM	2635	CA	ASP	2218	94.993	30.344	123.687	1.00	24.19
ATOM	2636	CB	ASP	2218	96.385	29.741	123.795	1.00	24.55
ATOM	2637	CG	ASP	2218	96.751	28.908	122.600	1.00	25.12
ATOM	2638	OD1	ASP	2218	95.908	28.741	121.693	1.00	25.15
ATOM	2639	OD2	ASP	2218	97.895	28.411	122.575	1.00	25.43
ATOM	2640	C	ASP	2218	94.309	30.273	125.041	1.00	25.23
ATOM	2641	O	ASP	2218	94.398	31.203	125.847	1.00	24.60
ATOM	2642	N	SER	2219	93.613	29.162	125.268	1.00	25.53
ATOM	2643	CA	SER	2219	92.913	28.901	126.520	1.00	24.58
ATOM	2644	CB	SER	2219	93.900	28.304	127.536	1.00	26.55
ATOM	2645	OG	SER	2219	93.242	27.559	128.559	1.00	30.52
ATOM	2646	C	SER	2219	92.258	30.145	127.104	1.00	22.73
ATOM	2647	O	SER	2219	92.674	30.645	128.140	1.00	21.07
ATOM	2648	N	VAL	2220	91.215	30.637	126.450	1.00	22.94
ATOM	2649	CA	VAL	2220	90.548	31.835	126.935	1.00	23.29
ATOM	2650	CB	VAL	2220	89.682	32.470	125.839	1.00	21.85
ATOM	2651	CG1	VAL	2220	90.564	32.792	124.638	1.00	21.42
ATOM	2652	CG2	VAL	2220	88.544	31.549	125.455	1.00	19.27
ATOM	2653	C	VAL	2220	89.713	31.601	128.184	1.00	24.09
ATOM	2654	O	VAL	2220	89.290	30.485	128.466	1.00	25.16
ATOM	2655	N	VAL	2221	89.496	32.664	128.946	1.00	24.97
ATOM	2656	CA	VAL	2221	88.712	32.585	130.177	1.00	25.49
ATOM	2657	CB	VAL	2221	89.608	32.400	131.424	1.00	24.80
ATOM	2658	CG1	VAL	2221	90.294	31.048	131.374	1.00	24.92
ATOM	2659	CG2	VAL	2221	90.626	33.526	131.511	1.00	25.00
ATOM	2660	C	VAL	2221	87.870	33.840	130.374	1.00	25.44
ATOM	2661	O	VAL	2221	88.061	34.837	129.687	1.00	25.70
ATOM	2662	N	PRO	2222	86.922	33.807	131.323	1.00	26.28
ATOM	2663	CD	PRO	2222	86.620	32.728	132.281	1.00	26.63
ATOM	2664	CA	PRO	2222	86.063	34.969	131.579	1.00	27.30
ATOM	2665	CB	PRO	2222	85.534	34.698	132.981	1.00	25.99
ATOM	2666	CG	PRO	2222	85.346	33.230	132.951	1.00	26.68
ATOM	2667	C	PRO	2222	86.760	36.321	131.489	1.00	27.54
ATOM	2668	O	PRO	2222	86.225	37.268	130.908	1.00	27.07
ATOM	2669	N	SER	2223	87.951	36.412	132.069	1.00	28.28
ATOM	2670	CA	SER	2223	88.699	37.667	132.053	1.00	29.16
ATOM	2671	CB	SER	2223	90.073	37.486	132.721	1.00	30.38
ATOM	2672	OG	SER	2223	91.045	36.980	131.812	1.00	31.85
ATOM	2673	C	SER	2223	88.894	38.215	130.638	1.00	28.77
ATOM	2674	O	SER	2223	89.073	39.417	130.447	1.00	29.12
ATOM	2675	N	ASP	2224	88.847	37.334	129.649	1.00	28.24
ATOM	2676	CA	ASP	2224	89.045	37.747	128.279	1.00	27.95
ATOM	2677	CB	ASP	2224	89.609	36.577	127.476	1.00	29.00
ATOM	2678	CG	ASP	2224	90.940	36.103	128.022	1.00	29.75
ATOM	2679	OD1	ASP	2224	91.806	36.968	128.293	1.00	30.18
ATOM	2680	OD2	ASP	2224	91.119	34.876	128.183	1.00	29.10
ATOM	2681	C	ASP	2224	87.792	38.300	127.629	1.00	27.30
ATOM	2682	O	ASP	2224	87.866	38.939	126.585	1.00	27.89
ATOM	2683	N	LYS	2225	86.641	38.073	128.243	1.00	27.44
ATOM	2684	CA	LYS	2225	85.403	38.582	127.669	1.00	29.05
ATOM	2685	CB	LYS	2225	84.240	38.398	128.640	1.00	30.40
ATOM	2686	CG	LYS	2225	84.042	36.969	129.081	1.00	31.45
ATOM	2687	CD	LYS	2225	82.580	36.664	129.267	1.00	34.02
ATOM	2688	CE	LYS	2225	81.939	37.559	130.300	1.00	35.70

Table 6

ATOM	2689	NZ	LYS	2225	80.492	37.226	130.416	1.00	38.06
ATOM	2690	C	LYS	2225	85.589	40.056	127.370	1.00	29.01
ATOM	2691	O	LYS	2225	86.169	40.779	128.178	1.00	29.46
ATOM	2692	N	GLY	2226	85.115	40.499	126.210	1.00	28.77
ATOM	2693	CA	GLY	2226	85.257	41.899	125.860	1.00	29.00
ATOM	2694	C	GLY	2226	85.247	42.191	124.372	1.00	29.03
ATOM	2695	O	GLY	2226	84.906	41.336	123.562	1.00	29.33
ATOM	2696	N	ASN	2227	85.605	43.421	124.016	1.00	29.41
ATOM	2697	CA	ASN	2227	85.654	43.832	122.623	1.00	29.45
ATOM	2698	CB	ASN	2227	85.078	45.229	122.453	1.00	30.02
ATOM	2699	CG	ASN	2227	83.646	45.307	122.876	1.00	31.29
ATOM	2700	OD1	ASN	2227	82.765	44.769	122.207	1.00	32.09
ATOM	2701	ND2	ASN	2227	83.397	45.967	124.006	1.00	31.20
ATOM	2702	C	ASN	2227	87.099	43.858	122.205	1.00	29.08
ATOM	2703	O	ASN	2227	87.959	44.302	122.955	1.00	30.38
ATOM	2704	N	TYR	2228	87.369	-43.385	121.005	1.00	27.71
ATOM	2705	CA	TYR	2228	88.721	43.374	120.514	1.00	28.06
ATOM	2706	CB	TYR	2228	89.195	41.921	120.363	1.00	28.22
ATOM	2707	CG	TYR	2228	89.471	41.237	121.692	1.00	27.12
ATOM	2708	CD1	TYR	2228	88.432	40.824	122.531	1.00	25.93
ATOM	2709	CE1	TYR	2228	88.698	40.271	123.793	1.00	26.56
ATOM	2710	CD2	TYR	2228	90.779	41.074	122.143	1.00	27.73
ATOM	2711	CE2	TYR	2228	91.053	40.526	123.399	1.00	27.06
ATOM	2712	CZ	TYR	2228	90.016	40.129	124.215	1.00	26.74
ATOM	2713	OH	TYR	2228	90.326	39.598	125.442	1.00	27.37
ATOM	2714	C	TYR	2228	88.719	44.119	119.188	1.00	29.09
ATOM	2715	O	TYR	2228	87.966	43.769	118.278	1.00	29.31
ATOM	2716	N	THR	2229	89.544	45.159	119.087	1.00	29.61
ATOM	2717	CA	THR	2229	89.608	45.959	117.872	1.00	29.63
ATOM	2718	CB	THR	2229	89.333	47.437	118.158	1.00	28.68
ATOM	2719	OG1	THR	2229	88.084	47.574	118.831	1.00	27.17
ATOM	2720	CG2	THR	2229	89.300	48.223	116.858	1.00	28.49
ATOM	2721	C	THR	2229	90.952	45.913	117.175	1.00	30.97
ATOM	2722	O	THR	2229	92.004	46.149	117.784	1.00	30.73
ATOM	2723	N	CYS	2230	90.913	45.639	115.882	1.00	32.04
ATOM	2724	CA	CYS	2230	92.136	45.615	115.110	1.00	33.92
ATOM	2725	C	CYS	2230	92.179	46.950	114.387	1.00	34.62
ATOM	2726	O	CYS	2230	91.147	47.457	113.961	1.00	34.44
ATOM	2727	CB	CYS	2230	92.110	44.483	114.084	1.00	33.63
ATOM	2728	SG	CYS	2230	90.959	44.779	112.710	1.00	32.18
ATOM	2729	N	ILE	2231	93.372	47.518	114.261	1.00	35.98
ATOM	2730	CA	ILE	2231	93.545	48.786	113.577	1.00	36.56
ATOM	2731	CB	ILE	2231	93.892	49.900	114.556	1.00	35.25
ATOM	2732	CG2	ILE	2231	94.255	51.160	113.805	1.00	36.52
ATOM	2733	CG1	ILE	2231	92.699	50.170	115.457	1.00	35.13
ATOM	2734	CD1	ILE	2231	92.949	51.257	116.448	1.00	35.38
ATOM	2735	C	ILE	2231	94.653	48.694	112.547	1.00	38.34
ATOM	2736	O	ILE	2231	95.840	48.685	112.891	1.00	38.80
ATOM	2737	N	VAL	2232	94.258	48.617	111.283	1.00	39.59
ATOM	2738	CA	VAL	2232	95.213	48.546	110.193	1.00	41.70
ATOM	2739	CB	VAL	2232	94.705	47.653	109.084	1.00	42.55
ATOM	2740	CG1	VAL	2232	95.767	47.522	108.005	1.00	43.06
ATOM	2741	CG2	VAL	2232	94.340	46.304	109.658	1.00	43.42
ATOM	2742	C	VAL	2232	95.353	49.958	109.667	1.00	42.90
ATOM	2743	O	VAL	2232	94.356	50.625	109.405	1.00	42.57
ATOM	2744	N	GLU	2233	96.589	50.408	109.488	1.00	44.86

Table 6

ATOM	2745	CA	GLU	2233	96.802	51.775	109.050	1.00	46.62
ATOM	2746	CB	GLU	2233	96.569	52.671	110.253	1.00	48.43
ATOM	2747	CG	GLU	2233	97.511	52.278	111.386	1.00	52.28
ATOM	2748	CD	GLU	2233	97.188	52.948	112.701	1.00	54.75
ATOM	2749	OE1	GLU	2233	96.683	54.092	112.668	1.00	56.35
ATOM	2750	OE2	GLU	2233	97.457	52.338	113.764	1.00	55.00
ATOM	2751	C	GLU	2233	98.181	52.096	108.466	1.00	46.69
ATOM	2752	O	GLU	2233	99.210	51.595	108.924	1.00	45.42
ATOM	2753	N	ASN	2234	98.181	52.940	107.442	1.00	47.28
ATOM	2754	CA	ASN	2234	99.415	53.408	106.837	1.00	48.02
ATOM	2755	CB	ASN	2234	99.665	52.807	105.440	1.00	48.62
ATOM	2756	CG	ASN	2234	98.596	53.170	104.434	1.00	49.97
ATOM	2757	OD1	ASN	2234	97.922	54.196	104.563	1.00	50.42
ATOM	2758	ND2	ASN	2234	98.448	52.336	103.404	1.00	50.09
ATOM	2759	C	ASN	2234	99.253	54.925	106.782	1.00	48.23
ATOM	2760	O	ASN	2234	98.372	55.473	107.439	1.00	47.22
ATOM	2761	N	GLU	2235	100.083	55.598	106.000	1.00	48.98
ATOM	2762	CA	GLU	2235	100.051	57.052	105.905	1.00	49.40
ATOM	2763	CB	GLU	2235	101.323	57.527	105.210	1.00	51.16
ATOM	2764	CG	GLU	2235	102.574	56.796	105.669	1.00	55.19
ATOM	2765	CD	GLU	2235	103.767	57.050	104.756	1.00	58.69
ATOM	2766	OE1	GLU	2235	103.660	56.759	103.539	1.00	60.15
ATOM	2767	OE2	GLU	2235	104.811	57.539	105.257	1.00	58.99
ATOM	2768	C	GLU	2235	98.845	57.662	105.191	1.00	48.61
ATOM	2769	O	GLU	2235	98.562	58.845	105.357	1.00	47.90
ATOM	2770	N	TYR	2236	98.128	56.869	104.408	1.00	48.32
ATOM	2771	CA	TYR	2236	96.997	57.413	103.662	1.00	48.33
ATOM	2772	CB	TYR	2236	97.152	57.090	102.178	1.00	50.15
ATOM	2773	CG	TYR	2236	98.554	57.340	101.694	1.00	53.62
ATOM	2774	CD1	TYR	2236	99.607	56.542	102.137	1.00	55.10
ATOM	2775	CE1	TYR	2236	100.917	56.815	101.784	1.00	57.18
ATOM	2776	CD2	TYR	2236	98.850	58.420	100.868	1.00	55.01
ATOM	2777	CE2	TYR	2236	100.167	58.704	100.504	1.00	57.17
ATOM	2778	CZ	TYR	2236	101.196	57.895	100.972	1.00	57.54
ATOM	2779	OH	TYR	2236	102.507	58.170	100.655	1.00	59.18
ATOM	2780	C	TYR	2236	95.638	56.958	104.141	1.00	47.36
ATOM	2781	O	TYR	2236	94.657	57.050	103.408	1.00	47.35
ATOM	2782	N	GLY	2237	95.573	56.476	105.375	1.00	46.08
ATOM	2783	CA	GLY	2237	94.302	56.026	105.903	1.00	43.02
ATOM	2784	C	GLY	2237	94.425	54.969	106.980	1.00	41.26
ATOM	2785	O	GLY	2237	95.512	54.455	107.270	1.00	40.98
ATOM	2786	N	SER	2238	93.286	54.654	107.585	1.00	38.81
ATOM	2787	CA	SER	2238	93.214	53.654	108.635	1.00	35.42
ATOM	2788	CB	SER	2238	93.350	54.294	110.007	1.00	34.17
ATOM	2789	OG	SER	2238	92.170	54.064	110.755	1.00	30.78
ATOM	2790	C	SER	2238	91.860	52.996	108.556	1.00	34.05
ATOM	2791	O	SER	2238	90.883	53.624	108.170	1.00	34.61
ATOM	2792	N	ILE	2239	91.813	51.728	108.926	1.00	32.36
ATOM	2793	CA	ILE	2239	90.580	50.968	108.929	1.00	30.84
ATOM	2794	CB	ILE	2239	90.540	49.998	107.745	1.00	30.29
ATOM	2795	CG2	ILE	2239	90.206	50.742	106.481	1.00	30.27
ATOM	2796	CG1	ILE	2239	91.891	49.299	107.611	1.00	29.92
ATOM	2797	CD1	ILE	2239	92.028	48.517	106.356	1.00	30.31
ATOM	2798	C	ILE	2239	90.582	50.185	110.230	1.00	30.38
ATOM	2799	O	ILE	2239	91.627	50.039	110.872	1.00	30.66
ATOM	2800	N	ASN	2240	89.424	49.678	110.624	1.00	29.34

Table 6

ATOM	2801	CA	ASN	2240	89.356	48.924	111.859	1.00	28.33
ATOM	2802	CB	ASN	2240	89.456	49.875	113.032	1.00	27.41
ATOM	2803	CG	ASN	2240	88.246	50.745	113.143	1.00	27.47
ATOM	2804	OD1	ASN	2240	87.304	50.428	113.858	1.00	30.26
ATOM	2805	ND2	ASN	2240	88.244	51.839	112.405	1.00	28.28
ATOM	2806	C	ASN	2240	88.062	48.142	111.972	1.00	28.33
ATOM	2807	O	ASN	2240	87.001	48.607	111.568	1.00	29.54
ATOM	2808	N	HIS	2241	88.165	46.943	112.524	1.00	27.96
ATOM	2809	CA	HIS	2241	87.010	46.106	112.727	1.00	26.95
ATOM	2810	CB	HIS	2241	87.081	44.867	111.848	1.00	27.14
ATOM	2811	CG	HIS	2241	85.795	44.109	111.785	1.00	25.98
ATOM	2812	CD2	HIS	2241	85.365	43.023	112.468	1.00	26.60
ATOM	2813	ND1	HIS	2241	84.757	44.482	110.962	1.00	25.66
ATOM	2814	CE1	HIS	2241	83.743	43.656	111.138	1.00	27.38
ATOM	2815	NE2	HIS	2241	84.085	42.761	112.047	1.00	28.32
ATOM	2816	C	HIS	2241	87.042	45.727	114.195	1.00	26.83
ATOM	2817	O	HIS	2241	88.097	45.791	114.840	1.00	27.26
ATOM	2818	N	THR	2242	85.895	45.334	114.726	1.00	26.44
ATOM	2819	CA	THR	2242	85.827	44.978	116.129	1.00	26.55
ATOM	2820	CB	THR	2242	85.252	46.153	116.937	1.00	24.58
ATOM	2821	OG1	THR	2242	86.180	47.241	116.898	1.00	22.77
ATOM	2822	CG2	THR	2242	84.995	45.756	118.375	1.00	22.55
ATOM	2823	C	THR	2242	85.004	43.728	116.374	1.00	27.83
ATOM	2824	O	THR	2242	83.844	43.650	115.970	1.00	29.08
ATOM	2825	N	TYR	2243	85.619	42.754	117.037	1.00	28.35
ATOM	2826	CA	TYR	2243	84.949	41.504	117.347	1.00	29.79
ATOM	2827	CB	TYR	2243	85.867	40.329	117.040	1.00	30.18
ATOM	2828	CG	TYR	2243	86.383	40.323	115.618	1.00	30.20
ATOM	2829	CD1	TYR	2243	87.669	40.761	115.324	1.00	29.45
ATOM	2830	CE1	TYR	2243	88.161	40.716	114.027	1.00	31.01
ATOM	2831	CD2	TYR	2243	85.595	39.847	114.573	1.00	29.56
ATOM	2832	CE2	TYR	2243	86.076	39.800	113.271	1.00	30.63
ATOM	2833	CZ	TYR	2243	87.362	40.231	113.001	1.00	31.28
ATOM	2834	OH	TYR	2243	87.856	40.162	111.715	1.00	31.89
ATOM	2835	C	TYR	2243	84.552	41.478	118.810	1.00	30.90
ATOM	2836	O	TYR	2243	85.180	42.131	119.641	1.00	32.19
ATOM	2837	N	GLN	2244	83.507	40.725	119.127	1.00	31.55
ATOM	2838	CA	GLN	2244	83.040	40.629	120.501	1.00	32.33
ATOM	2839	CB	GLN	2244	81.541	40.895	120.579	1.00	34.66
ATOM	2840	CG	GLN	2244	81.114	42.118	119.818	1.00	41.95
ATOM	2841	CD	GLN	2244	79.612	42.191	119.631	1.00	46.48
ATOM	2842	OE1	GLN	2244	78.980	41.210	119.228	1.00	50.88
ATOM	2843	NE2	GLN	2244	79.029	43.360	119.911	1.00	47.45
ATOM	2844	C	GLN	2244	83.299	39.225	120.971	1.00	30.93
ATOM	2845	O	GLN	2244	82.847	38.281	120.342	1.00	32.32
ATOM	2846	N	LEU	2245	84.031	39.081	122.066	1.00	29.70
ATOM	2847	CA	LEU	2245	84.314	37.764	122.595	1.00	28.82
ATOM	2848	CB	LEU	2245	85.803	37.613	122.932	1.00	29.07
ATOM	2849	CG	LEU	2245	86.203	36.301	123.622	1.00	28.66
ATOM	2850	CD1	LEU	2245	85.712	35.124	122.828	1.00	28.15
ATOM	2851	CD2	LEU	2245	87.707	36.236	123.769	1.00	29.54
ATOM	2852	C	LEU	2245	83.495	37.542	123.839	1.00	27.92
ATOM	2853	O	LEU	2245	83.411	38.416	124.694	1.00	28.60
ATOM	2854	N	ASP	2246	82.872	36.376	123.923	1.00	27.25
ATOM	2855	CA	ASP	2246	82.086	36.015	125.086	1.00	27.26
ATOM	2856	CB	ASP	2246	80.593	36.149	124.805	1.00	28.12

Table 6

ATOM	2857	CG	ASP	2246	79.757	36.109	126.076	1.00	30.44
ATOM	2858	OD1	ASP	2246	78.511	36.132	125.976	1.00	33.16
ATOM	2859	OD2	ASP	2246	80.343	36.061	127.180	1.00	29.88
ATOM	2860	C	ASP	2246	82.441	34.578	125.426	1.00	27.63
ATOM	2861	O	ASP	2246	82.342	33.682	124.585	1.00	27.86
ATOM	2862	N	VAL	2247	82.881	34.370	126.661	1.00	27.19
ATOM	2863	CA	VAL	2247	83.275	33.049	127.116	1.00	26.28
ATOM	2864	CB	VAL	2247	84.661	33.111	127.724	1.00	26.83
ATOM	2865	CG1	VAL	2247	85.186	31.704	127.951	1.00	26.77
ATOM	2866	CG2	VAL	2247	85.573	33.926	126.799	1.00	26.27
ATOM	2867	C	VAL	2247	82.270	32.478	128.117	1.00	25.49
ATOM	2868	O	VAL	2247	81.866	33.135	129.070	1.00	25.04
ATOM	2869	N	VAL	2248	81.861	31.241	127.883	1.00	25.33
ATOM	2870	CA	VAL	2248	80.875	30.577	128.728	1.00	24.03
ATOM	2871	CB	VAL	2248	79.725	29.997	127.854	1.00	22.77
ATOM	2872	CG1	VAL	2248	78.704	29.305	128.707	1.00	21.53
ATOM	2873	CG2	VAL	2248	79.080	31.093	127.056	1.00	21.73
ATOM	2874	C	VAL	2248	81.525	29.432	129.501	1.00	24.15
ATOM	2875	O	VAL	2248	82.047	28.504	128.891	1.00	24.08
ATOM	2876	N	GLU	2249	81.538	29.492	130.833	1.00	24.50
ATOM	2877	CA	GLU	2249	82.133	28.392	131.605	1.00	25.67
ATOM	2878	CB	GLU	2249	82.573	28.855	133.002	1.00	25.92
ATOM	2879	CG	GLU	2249	83.681	29.907	133.001	1.00	27.35
ATOM	2880	CD	GLU	2249	84.096	30.356	134.400	1.00	28.29
ATOM	2881	OE1	GLU	2249	83.223	30.792	135.169	1.00	29.15
ATOM	2882	OE2	GLU	2249	85.298	30.287	134.729	1.00	28.96
ATOM	2883	C	GLU	2249	81.089	27.287	131.731	1.00	25.94
ATOM	2884	O	GLU	2249	79.934	27.550	132.090	1.00	27.27
ATOM	2885	N	ARG	2250	81.488	26.055	131.434	1.00	24.48
ATOM	2886	CA	ARG	2250	80.564	24.931	131.494	1.00	24.34
ATOM	2887	CB	ARG	2250	80.731	24.071	130.239	1.00	22.86
ATOM	2888	CG	ARG	2250	80.671	24.831	128.918	1.00	21.47
ATOM	2889	CD	ARG	2250	79.364	25.574	128.775	1.00	20.47
ATOM	2890	NE	ARG	2250	78.209	24.684	128.907	1.00	18.58
ATOM	2891	CZ	ARG	2250	77.726	23.919	127.934	1.00	16.19
ATOM	2892	NH1	ARG	2250	78.277	23.928	126.732	1.00	15.47
ATOM	2893	NH2	ARG	2250	76.681	23.150	128.172	1.00	14.35
ATOM	2894	C	ARG	2250	80.734	24.048	132.737	1.00	25.57
ATOM	2895	O	ARG	2250	81.855	23.784	133.154	1.00	26.62
ATOM	2896	N	SER	2251	79.622	23.588	133.318	1.00	27.67
ATOM	2897	CA	SER	2251	79.648	22.705	134.498	1.00	29.59
ATOM	2898	CB	SER	2251	78.802	23.289	135.645	1.00	29.49
ATOM	2899	OG	SER	2251	79.417	24.407	136.271	1.00	29.28
ATOM	2900	C	SER	2251	79.094	21.322	134.138	1.00	30.92
ATOM	2901	O	SER	2251	77.887	21.103	134.227	1.00	30.80
ATOM	2902	N	PRO	2252	79.972	20.372	133.747	1.00	32.52
ATOM	2903	CD	PRO	2252	81.428	20.579	133.660	1.00	33.32
ATOM	2904	CA	PRO	2252	79.641	18.996	133.357	1.00	33.64
ATOM	2905	CB	PRO	2252	80.797	18.638	132.462	1.00	32.97
ATOM	2906	CG	PRO	2252	81.936	19.192	133.257	1.00	33.41
ATOM	2907	C	PRO	2252	79.557	18.052	134.554	1.00	35.26
ATOM	2908	O	PRO	2252	80.393	17.162	134.709	1.00	35.60
ATOM	2909	N	HIS	2253	78.547	18.245	135.390	1.00	36.75
ATOM	2910	CA	HIS	2253	78.380	17.423	136.577	1.00	39.62
ATOM	2911	CB	HIS	2253	78.988	18.135	137.782	1.00	43.57
ATOM	2912	CG	HIS	2253	80.472	18.278	137.709	1.00	48.09

Table 6

ATOM	2913	CD2	HIS	2253	81.447	17.888	138.563	1.00	49.70
ATOM	2914	ND1	HIS	2253	81.110	18.861	136.636	1.00	50.53
ATOM	2915	CE1	HIS	2253	82.416	18.821	136.831	1.00	52.26
ATOM	2916	NE2	HIS	2253	82.647	18.236	137.994	1.00	51.65
ATOM	2917	C	HIS	2253	76.918	17.175	136.860	1.00	38.87
ATOM	2918	O	HIS	2253	76.053	17.848	136.305	1.00	39.07
ATOM	2919	N	ARG	2254	76.634	16.213	137.731	1.00	37.62
ATOM	2920	CA	ARG	2254	75.249	15.958	138.065	1.00	36.58
ATOM	2921	CB	ARG	2254	75.111	14.724	138.963	1.00	37.86
ATOM	2922	CG	ARG	2254	75.908	14.745	140.243	1.00	39.87
ATOM	2923	CD	ARG	2254	75.703	13.437	141.000	1.00	41.72
ATOM	2924	NE	ARG	2254	75.427	13.677	142.414	1.00	44.34
ATOM	2925	CZ	ARG	2254	76.355	13.791	143.358	1.00	44.80
ATOM	2926	NH1	ARG	2254	77.643	13.672	143.050	1.00	46.11
ATOM	2927	NH2	ARG	2254	75.989	14.058	144.607	1.00	45.02
ATOM	2928	C	ARG	2254	74.757	17.219	138.756	1.00	34.56
ATOM	2929	O	ARG	2254	75.548	18.025	139.229	1.00	34.81
ATOM	2930	N	PRO	2255	73.443	17.428	138.792	1.00	33.17
ATOM	2931	CD	PRO	2255	72.344	16.608	138.261	1.00	32.67
ATOM	2932	CA	PRO	2255	72.937	18.638	139.445	1.00	31.64
ATOM	2933	CB	PRO	2255	71.422	18.512	139.288	1.00	31.80
ATOM	2934	CG	PRO	2255	71.219	17.022	139.152	1.00	33.31
ATOM	2935	C	PRO	2255	73.382	18.777	140.887	1.00	30.09
ATOM	2936	O	PRO	2255	73.759	17.807	141.520	1.00	29.82
ATOM	2937	N	ILE	2256	73.351	20.001	141.391	1.00	29.29
ATOM	2938	CA	ILE	2256	73.742	20.275	142.763	1.00	29.70
ATOM	2939	CB	ILE	2256	74.964	21.191	142.795	1.00	30.13
ATOM	2940	CG2	ILE	2256	75.252	21.633	144.218	1.00	30.25
ATOM	2941	CG1	ILE	2256	76.149	20.472	142.163	1.00	29.49
ATOM	2942	CD1	ILE	2256	77.398	21.292	142.128	1.00	32.07
ATOM	2943	C	ILE	2256	72.593	20.953	143.511	1.00	30.42
ATOM	2944	O	ILE	2256	72.040	21.950	143.036	1.00	30.59
ATOM	2945	N	LEU	2257	72.234	20.414	144.677	1.00	29.49
ATOM	2946	CA	LEU	2257	71.140	20.986	145.453	1.00	29.81
ATOM	2947	CB	LEU	2257	70.230	19.888	146.023	1.00	30.16
ATOM	2948	CG	LEU	2257	69.651	18.754	145.166	1.00	30.57
ATOM	2949	CD1	LEU	2257	68.237	18.428	145.650	1.00	28.49
ATOM	2950	CD2	LEU	2257	69.619	19.160	143.703	1.00	30.97
ATOM	2951	C	LEU	2257	71.681	21.813	146.606	1.00	30.20
ATOM	2952	O	LEU	2257	72.579	21.370	147.311	1.00	31.09
ATOM	2953	N	GLN	2258	71.137	23.013	146.804	1.00	29.96
ATOM	2954	CA	GLN	2258	71.585	23.869	147.902	1.00	28.96
ATOM	2955	CB	GLN	2258	70.717	25.122	148.021	1.00	28.83
ATOM	2956	C	GLN	2258	71.485	23.092	149.201	1.00	28.90
ATOM	2957	O	GLN	2258	70.412	22.631	149.584	1.00	29.36
ATOM	2958	N	ALA	2259	72.614	22.935	149.874	1.00	28.31
ATOM	2959	CA	ALA	2259	72.637	22.232	151.141	1.00	26.85
ATOM	2960	CB	ALA	2259	74.014	22.353	151.773	1.00	26.17
ATOM	2961	C	ALA	2259	71.596	22.859	152.057	1.00	26.35
ATOM	2962	O	ALA	2259	71.340	24.057	151.989	1.00	26.69
ATOM	2963	N	GLY	2260	70.987	22.048	152.908	1.00	26.17
ATOM	2964	CA	GLY	2260	70.010	22.580	153.831	1.00	26.69
ATOM	2965	C	GLY	2260	68.583	22.528	153.332	1.00	27.47
ATOM	2966	O	GLY	2260	67.647	22.592	154.135	1.00	27.56
ATOM	2967	N	LEU	2261	68.405	22.433	152.017	1.00	27.03
ATOM	2968	CA	LEU	2261	67.066	22.364	151.454	1.00	26.14

Table 6

ATOM	2969	CB	LEU	2261	66.824	23.561	150.548	1.00	23.68
ATOM	2970	CG	LEU	2261	67.108	24.907	151.206	1.00	21.44
ATOM	2971	CD1	LEU	2261	66.415	26.001	150.409	1.00	19.96
ATOM	2972	CD2	LEU	2261	66.606	24.901	152.631	1.00	20.06
ATOM	2973	C	LEU	2261	66.844	21.055	150.694	1.00	27.99
ATOM	2974	O	LEU	2261	67.742	20.569	149.995	1.00	29.22
ATOM	2975	N	PRO	2262	65.641	20.461	150.824	1.00	28.27
ATOM	2976	CD	PRO	2262	65.334	19.148	150.228	1.00	27.52
ATOM	2977	CA	PRO	2262	64.507	20.941	151.626	1.00	27.27
ATOM	2978	CB	PRO	2262	63.380	19.991	151.232	1.00	26.90
ATOM	2979	CG	PRO	2262	64.107	18.717	151.000	1.00	27.49
ATOM	2980	C	PRO	2262	64.822	20.899	153.110	1.00	26.77
ATOM	2981	O	PRO	2262	65.772	20.243	153.526	1.00	25.45
ATOM	2982	N	ALA	2263	64.025	21.590	153.911	1.00	27.41
ATOM	2983	CA	ALA	2263	64.293	21.629	155.342	1.00	28.52
ATOM	2984	CB	ALA	2263	64.411	23.068	155.794	1.00	29.22
ATOM	2985	C	ALA	2263	63.261	20.915	156.183	1.00	29.21
ATOM	2986	O	ALA	2263	62.068	21.002	155.909	1.00	29.99
ATOM	2987	N	ASN	2264	63.716	20.213	157.213	1.00	29.48
ATOM	2988	CA	ASN	2264	62.782	19.522	158.075	1.00	30.81
ATOM	2989	CB	ASN	2264	63.511	18.779	159.183	1.00	31.19
ATOM	2990	CG	ASN	2264	64.414	17.697	158.653	1.00	33.95
ATOM	2991	OD1	ASN	2264	64.021	16.915	157.791	1.00	35.19
ATOM	2992	ND2	ASN	2264	65.635	17.635	159.173	1.00	36.12
ATOM	2993	C	ASN	2264	61.870	20.562	158.688	1.00	32.46
ATOM	2994	O	ASN	2264	62.313	21.654	159.049	1.00	33.58
ATOM	2995	N	LYS	2265	60.589	20.242	158.788	1.00	33.38
ATOM	2996	CA	LYS	2265	59.651	21.169	159.387	1.00	34.69
ATOM	2997	CB	LYS	2265	58.895	21.962	158.325	1.00	33.92
ATOM	2998	CG	LYS	2265	59.765	22.767	157.408	1.00	35.31
ATOM	2999	CD	LYS	2265	58.923	23.796	156.699	1.00	38.59
ATOM	3000	CE	LYS	2265	59.563	24.252	155.406	1.00	40.99
ATOM	3001	NZ	LYS	2265	59.557	23.168	154.382	1.00	42.54
ATOM	3002	C	LYS	2265	58.660	20.408	160.241	1.00	36.45
ATOM	3003	O	LYS	2265	58.172	19.345	159.857	1.00	38.01
ATOM	3004	N	THR	2266	58.384	20.950	161.417	1.00	37.19
ATOM	3005	CA	THR	2266	57.421	20.365	162.331	1.00	37.14
ATOM	3006	CB	THR	2266	58.019	20.261	163.744	1.00	37.39
ATOM	3007	OG1	THR	2266	59.134	19.361	163.715	1.00	37.04
ATOM	3008	CG2	THR	2266	56.994	19.753	164.729	1.00	37.38
ATOM	3009	C	THR	2266	56.255	21.343	162.293	1.00	37.21
ATOM	3010	O	THR	2266	56.450	22.548	162.427	1.00	36.61
ATOM	3011	N	VAL	2267	55.048	20.840	162.069	1.00	38.23
ATOM	3012	CA	VAL	2267	53.889	21.723	161.988	1.00	39.46
ATOM	3013	CB	VAL	2267	53.548	22.067	160.534	1.00	39.17
ATOM	3014	CG1	VAL	2267	54.768	22.625	159.824	1.00	39.01
ATOM	3015	CG2	VAL	2267	53.027	20.829	159.831	1.00	39.27
ATOM	3016	C	VAL	2267	52.635	21.138	162.608	1.00	40.66
ATOM	3017	O	VAL	2267	52.543	19.932	162.848	1.00	42.01
ATOM	3018	N	ALA	2268	51.664	22.012	162.843	1.00	41.22
ATOM	3019	CA	ALA	2268	50.400	21.627	163.439	1.00	41.45
ATOM	3020	CB	ALA	2268	49.697	22.853	163.965	1.00	41.09
ATOM	3021	C	ALA	2268	49.512	20.910	162.435	1.00	41.95
ATOM	3022	O	ALA	2268	49.542	21.197	161.238	1.00	42.09
ATOM	3023	N	LEU	2269	48.730	19.962	162.927	1.00	42.41
ATOM	3024	CA	LEU	2269	47.826	19.221	162.069	1.00	43.71

Table 6

ATOM	3025	CB	LEU	2269	46.992	18.259	162.922	1.00	44.16
ATOM	3026	CG	LEU	2269	45.907	17.412	162.257	1.00	44.43
ATOM	3027	CD1	LEU	2269	45.865	16.040	162.909	1.00	44.37
ATOM	3028	CD2	LEU	2269	44.559	18.122	162.361	1.00	44.90
ATOM	3029	C	LEU	2269	46.933	20.226	161.342	1.00	44.37
ATOM	3030	O	LEU	2269	46.468	21.193	161.940	1.00	44.68
ATOM	3031	N	GLY	2270	46.718	20.016	160.047	1.00	44.77
ATOM	3032	CA	GLY	2270	45.873	20.920	159.286	1.00	44.86
ATOM	3033	C	GLY	2270	46.569	22.151	158.725	1.00	45.21
ATOM	3034	O	GLY	2270	45.978	22.898	157.938	1.00	46.08
ATOM	3035	N	SER	2271	47.821	22.368	159.120	1.00	44.66
ATOM	3036	CA	SER	2271	48.599	23.514	158.643	1.00	44.47
ATOM	3037	CB	SER	2271	49.962	23.551	159.337	1.00	43.11
ATOM	3038	OG	SER	2271	49.839	23.441	160.737	1.00	43.71
ATOM	3039	C	SER	2271	48.870	23.488	157.134	1.00	44.57
ATOM	3040	O	SER	2271	48.425	22.592	156.406	1.00	45.14
ATOM	3041	N	ASN	2272	49.622	24.487	156.685	1.00	43.89
ATOM	3042	CA	ASN	2272	50.040	24.605	155.290	1.00	43.78
ATOM	3043	CB	ASN	2272	49.604	25.931	154.672	1.00	45.49
ATOM	3044	CG	ASN	2272	48.121	26.029	154.494	1.00	47.22
ATOM	3045	OD1	ASN	2272	47.515	25.236	153.769	1.00	48.34
ATOM	3046	ND2	ASN	2272	47.514	27.010	155.155	1.00	49.19
ATOM	3047	C	ASN	2272	51.553	24.603	155.341	1.00	42.43
ATOM	3048	O	ASN	2272	52.146	25.277	156.176	1.00	42.15
ATOM	3049	N	VAL	2273	52.185	23.858	154.451	1.00	41.35
ATOM	3050	CA	VAL	2273	53.636	23.811	154.445	1.00	40.09
ATOM	3051	CB	VAL	2273	54.156	22.581	155.213	1.00	39.83
ATOM	3052	CG1	VAL	2273	53.383	21.362	154.797	1.00	40.44
ATOM	3053	CG2	VAL	2273	55.640	22.369	154.931	1.00	39.62
ATOM	3054	C	VAL	2273	54.164	23.747	153.035	1.00	39.30
ATOM	3055	O	VAL	2273	53.531	23.169	152.156	1.00	39.51
ATOM	3056	N	GLU	2274	55.317	24.360	152.818	1.00	38.06
ATOM	3057	CA	GLU	2274	55.926	24.320	151.512	1.00	38.64
ATOM	3058	CB	GLU	2274	55.685	25.638	150.763	1.00	40.66
ATOM	3059	CG	GLU	2274	56.370	26.881	151.318	1.00	43.80
ATOM	3060	CD	GLU	2274	55.780	28.173	150.741	1.00	45.03
ATOM	3061	OE1	GLU	2274	54.604	28.468	151.045	1.00	46.22
ATOM	3062	OE2	GLU	2274	56.479	28.887	149.985	1.00	44.78
ATOM	3063	C	GLU	2274	57.410	23.997	151.637	1.00	37.72
ATOM	3064	O	GLU	2274	58.132	24.605	152.428	1.00	38.00
ATOM	3065	N	PHE	2275	57.843	22.995	150.880	1.00	36.09
ATOM	3066	CA	PHE	2275	59.234	22.567	150.882	1.00	34.28
ATOM	3067	CB	PHE	2275	59.320	21.059	150.722	1.00	32.50
ATOM	3068	CG	PHE	2275	59.230	20.314	152.011	1.00	31.28
ATOM	3069	CD1	PHE	2275	60.273	20.366	152.928	1.00	30.79
ATOM	3070	CD2	PHE	2275	58.113	19.552	152.310	1.00	30.84
ATOM	3071	CE1	PHE	2275	60.206	19.672	154.116	1.00	29.97
ATOM	3072	CE2	PHE	2275	58.035	18.850	153.500	1.00	29.96
ATOM	3073	CZ	PHE	2275	59.084	18.910	154.405	1.00	30.45
ATOM	3074	C	PHE	2275	59.966	23.238	149.745	1.00	33.99
ATOM	3075	O	PHE	2275	59.389	23.511	148.701	1.00	33.87
ATOM	3076	N	MET	2276	61.246	23.497	149.933	1.00	33.77
ATOM	3077	CA	MET	2276	61.983	24.162	148.890	1.00	34.52
ATOM	3078	CB	MET	2276	62.365	25.544	149.387	1.00	37.58
ATOM	3079	CG	MET	2276	62.775	26.494	148.306	1.00	43.79
ATOM	3080	SD	MET	2276	62.744	28.176	148.933	1.00	52.43

Table 6

ATOM	3081	CE	MET	2276	63.765	28.004	150.468	1.00	49.38
ATOM	3082	C	MET	2276	63.207	23.385	148.416	1.00	33.46
ATOM	3083	O	MET	2276	63.807	22.615	149.165	1.00	32.44
ATOM	3084	N	CYS	2277	63.563	23.586	147.152	1.00	32.65
ATOM	3085	CA	CYS	2277	64.700	22.898	146.572	1.00	32.07
ATOM	3086	C	CYS	2277	65.361	23.762	145.510	1.00	31.59
ATOM	3087	O	CYS	2277	64.772	24.050	144.473	1.00	32.69
ATOM	3088	CB	CYS	2277	64.234	21.579	145.967	1.00	31.67
ATOM	3089	SG	CYS	2277	65.563	20.403	145.571	1.00	33.74
ATOM	3090	N	LYS	2278	66.590	24.179	145.785	1.00	31.20
ATOM	3091	CA	LYS	2278	67.360	25.024	144.876	1.00	30.18
ATOM	3092	CB	LYS	2278	68.083	26.122	145.672	1.00	28.01
ATOM	3093	C	LYS	2278	68.371	24.164	144.119	1.00	29.96
ATOM	3094	O	LYS	2278	69.321	23.637	144.707	1.00	30.70
ATOM	3095	N	VAL	2279	68.170	24.033	142.811	1.00	28.81
ATOM	3096	CA	VAL	2279	69.036	23.201	141.979	1.00	27.68
ATOM	3097	CB	VAL	2279	68.186	22.212	141.121	1.00	25.96
ATOM	3098	CG1	VAL	2279	69.068	21.351	140.274	1.00	24.56
ATOM	3099	CG2	VAL	2279	67.352	21.345	142.010	1.00	26.30
ATOM	3100	C	VAL	2279	69.950	23.976	141.034	1.00	27.72
ATOM	3101	O	VAL	2279	69.568	25.006	140.479	1.00	27.19
ATOM	3102	N	TYR	2280	71.171	23.473	140.869	1.00	28.17
ATOM	3103	CA	TYR	2280	72.135	24.064	139.947	1.00	27.42
ATOM	3104	CB	TYR	2280	73.405	24.525	140.652	1.00	27.41
ATOM	3105	CG	TYR	2280	74.394	25.059	139.655	1.00	27.18
ATOM	3106	CD1	TYR	2280	74.222	26.321	139.097	1.00	28.01
ATOM	3107	CE1	TYR	2280	75.029	26.771	138.067	1.00	26.71
ATOM	3108	CD2	TYR	2280	75.417	24.258	139.159	1.00	26.24
ATOM	3109	CE2	TYR	2280	76.231	24.701	138.124	1.00	25.96
ATOM	3110	CZ	TYR	2280	76.023	25.959	137.582	1.00	26.31
ATOM	3111	OH	TYR	2280	76.780	26.400	136.529	1.00	28.45
ATOM	3112	C	TYR	2280	72.520	22.975	138.956	1.00	27.11
ATOM	3113	O	TYR	2280	72.691	21.820	139.341	1.00	28.12
ATOM	3114	N	SER	2281	72.674	23.337	137.689	1.00	25.08
ATOM	3115	CA	SER	2281	73.028	22.359	136.676	1.00	23.95
ATOM	3116	CB	SER	2281	71.908	21.324	136.533	1.00	24.09
ATOM	3117	OG	SER	2281	72.181	20.398	135.489	1.00	22.96
ATOM	3118	C	SER	2281	73.238	23.031	135.345	1.00	23.28
ATOM	3119	O	SER	2281	72.375	23.764	134.878	1.00	22.83
ATOM	3120	N	ASP	2282	74.380	22.784	134.715	1.00	23.54
ATOM	3121	CA	ASP	2282	74.604	23.389	133.422	1.00	22.96
ATOM	3122	CB	ASP	2282	76.019	23.128	132.924	1.00	24.67
ATOM	3123	CG	ASP	2282	76.314	23.850	131.637	1.00	27.89
ATOM	3124	OD1	ASP	2282	77.502	23.973	131.293	1.00	29.40
ATOM	3125	OD2	ASP	2282	75.358	24.291	130.960	1.00	30.16
ATOM	3126	C	ASP	2282	73.563	22.754	132.524	1.00	21.66
ATOM	3127	O	ASP	2282	72.618	23.409	132.125	1.00	21.72
ATOM	3128	N	PRO	2283	73.695	21.456	132.228	1.00	21.91
ATOM	3129	CD	PRO	2283	74.691	20.479	132.692	1.00	22.08
ATOM	3130	CA	PRO	2283	72.701	20.802	131.371	1.00	22.90
ATOM	3131	CB	PRO	2283	73.166	19.354	131.342	1.00	22.53
ATOM	3132	CG	PRO	2283	74.626	19.447	131.616	1.00	21.93
ATOM	3133	C	PRO	2283	71.323	20.916	132.019	1.00	23.26
ATOM	3134	O	PRO	2283	71.191	20.844	133.240	1.00	22.90
ATOM	3135	N	GLN	2284	70.298	21.077	131.203	1.00	23.49
ATOM	3136	CA	GLN	2284	68.946	21.192	131.714	1.00	24.43

Table 6

ATOM	3137	CB	GLN	2284	67.964	21.127	130.542	1.00	25.05
ATOM	3138	CG	GLN	2284	66.814	22.065	130.681	1.00	25.12
ATOM	3139	CD	GLN	2284	67.292	23.440	131.000	1.00	25.68
ATOM	3140	OE1	GLN	2284	67.992	24.077	130.202	1.00	27.13
ATOM	3141	NE2	GLN	2284	66.941	23.914	132.181	1.00	26.58
ATOM	3142	C	GLN	2284	68.646	20.052	132.695	1.00	24.85
ATOM	3143	O	GLN	2284	68.624	18.881	132.303	1.00	25.65
ATOM	3144	N	PRO	2285	68.417	20.373	133.978	1.00	24.45
ATOM	3145	CD	PRO	2285	68.537	21.685	134.637	1.00	24.26
ATOM	3146	CA	PRO	2285	68.119	19.336	134.969	1.00	24.12
ATOM	3147	CB	PRO	2285	68.541	19.980	136.271	1.00	23.75
ATOM	3148	CG	PRO	2285	68.097	21.378	136.070	1.00	22.99
ATOM	3149	C	PRO	2285	66.637	18.990	134.988	1.00	24.46
ATOM	3150	O	PRO	2285	65.787	19.759	134.533	1.00	25.13
ATOM	3151	N	HIS	2286	66.327	17.823	135.519	1.00	24.23
ATOM	3152	CA	HIS	2286	64.946	17.408	135.620	1.00	24.03
ATOM	3153	CB	HIS	2286	64.712	16.157	134.784	1.00	24.57
ATOM	3154	CG	HIS	2286	63.319	15.629	134.894	1.00	25.55
ATOM	3155	CD2	HIS	2286	62.275	15.690	134.040	1.00	25.90
ATOM	3156	ND1	HIS	2286	62.853	14.997	136.026	1.00	26.20
ATOM	3157	CE1	HIS	2286	61.580	14.689	135.863	1.00	26.25
ATOM	3158	NE2	HIS	2286	61.205	15.098	134.664	1.00	26.27
ATOM	3159	C	HIS	2286	64.615	17.158	137.090	1.00	23.84
ATOM	3160	O	HIS	2286	65.011	16.154	137.673	1.00	22.43
ATOM	3161	N	ILE	2287	63.896	18.097	137.689	1.00	24.72
ATOM	3162	CA	ILE	2287	63.541	18.003	139.095	1.00	25.15
ATOM	3163	CB	ILE	2287	63.338	19.400	139.682	1.00	24.12
ATOM	3164	CG2	ILE	2287	63.106	19.311	141.166	1.00	26.07
ATOM	3165	CG1	ILE	2287	64.572	20.248	139.411	1.00	22.78
ATOM	3166	CD1	ILE	2287	64.445	21.660	139.880	1.00	23.38
ATOM	3167	C	ILE	2287	62.279	17.188	139.289	1.00	26.72
ATOM	3168	O	ILE	2287	61.423	17.134	138.404	1.00	28.94
ATOM	3169	N	GLN	2288	62.159	16.560	140.453	1.00	25.98
ATOM	3170	CA	GLN	2288	60.998	15.742	140.749	1.00	25.93
ATOM	3171	CB	GLN	2288	61.194	14.364	140.128	1.00	26.69
ATOM	3172	CG	GLN	2288	59.997	13.458	140.215	1.00	27.14
ATOM	3173	CD	GLN	2288	60.212	12.198	139.411	1.00	27.36
ATOM	3174	OE1	GLN	2288	59.344	11.777	138.636	1.00	26.74
ATOM	3175	NE2	GLN	2288	61.376	11.587	139.583	1.00	23.82
ATOM	3176	C	GLN	2288	60.834	15.627	142.252	1.00	25.36
ATOM	3177	O	GLN	2288	61.803	15.376	142.955	1.00	25.09
ATOM	3178	N	TRP	2289	59.615	15.820	142.750	1.00	25.01
ATOM	3179	CA	TRP	2289	59.378	15.724	144.188	1.00	24.43
ATOM	3180	CB	TRP	2289	58.474	16.848	144.687	1.00	25.01
ATOM	3181	CG	TRP	2289	59.160	18.185	144.825	1.00	26.96
ATOM	3182	CD2	TRP	2289	59.838	18.695	145.983	1.00	26.71
ATOM	3183	CE2	TRP	2289	60.271	20.005	145.673	1.00	27.05
ATOM	3184	CE3	TRP	2289	60.118	18.173	147.251	1.00	28.37
ATOM	3185	CD1	TRP	2289	59.218	19.174	143.888	1.00	28.38
ATOM	3186	NE1	TRP	2289	59.880	20.273	144.389	1.00	27.75
ATOM	3187	CZ2	TRP	2289	60.965	20.807	146.586	1.00	28.09
ATOM	3188	CZ3	TRP	2289	60.815	18.975	148.169	1.00	29.60
ATOM	3189	CH2	TRP	2289	61.228	20.278	147.828	1.00	29.72
ATOM	3190	C	TRP	2289	58.772	14.389	144.567	1.00	24.28
ATOM	3191	O	TRP	2289	57.858	13.915	143.921	1.00	25.11
ATOM	3192	N	LEU	2290	59.299	13.784	145.623	1.00	24.33

Table 6

ATOM	3193	CA	LEU	2290	58.830	12.490	146.086	1.00	25.05
ATOM	3194	CB	LEU	2290	59.894	11.423	145.890	1.00	24.75
ATOM	3195	CG	LEU	2290	60.013	10.744	144.543	1.00	25.63
ATOM	3196	CD1	LEU	2290	60.314	11.755	143.453	1.00	26.85
ATOM	3197	CD2	LEU	2290	61.120	9.737	144.636	1.00	27.55
ATOM	3198	C	LEU	2290	58.455	12.456	147.543	1.00	26.65
ATOM	3199	O	LEU	2290	58.983	13.210	148.359	1.00	28.27
ATOM	3200	N	LYS	2291	57.549	11.544	147.867	1.00	26.88
ATOM	3201	CA	LYS	2291	57.109	11.338	149.234	1.00	27.14
ATOM	3202	CB	LYS	2291	55.609	11.607	149.350	1.00	26.47
ATOM	3203	CG	LYS	2291	54.919	11.054	150.589	1.00	25.04
ATOM	3204	CD	LYS	2291	55.424	11.645	151.865	1.00	24.51
ATOM	3205	CE	LYS	2291	54.493	11.304	153.015	1.00	24.39
ATOM	3206	NZ	LYS	2291	54.334	9.840	153.244	1.00	26.35
ATOM	3207	C	LYS	2291	57.430	9.874	149.469	1.00	28.21
ATOM	3208	O	LYS	2291	57.182	9.043	148.602	1.00	27.88
ATOM	3209	N	HIS	2292	58.018	9.570	150.620	1.00	29.84
ATOM	3210	CA	HIS	2292	58.390	8.204	150.954	1.00	31.43
ATOM	3211	CB	HIS	2292	59.652	8.193	151.792	1.00	31.88
ATOM	3212	CG	HIS	2292	60.871	8.573	151.027	1.00	34.89
ATOM	3213	CD2	HIS	2292	61.500	9.764	150.883	1.00	36.36
ATOM	3214	ND1	HIS	2292	61.561	7.677	150.240	1.00	35.92
ATOM	3215	CE1	HIS	2292	62.563	8.299	149.644	1.00	35.84
ATOM	3216	NE2	HIS	2292	62.548	9.566	150.016	1.00	36.34
ATOM	3217	C	HIS	2292	57.282	7.549	151.717	1.00	32.87
ATOM	3218	O	HIS	2292	56.847	8.053	152.743	1.00	33.04
ATOM	3219	N	ILE	2293	56.841	6.412	151.208	1.00	35.01
ATOM	3220	CA	ILE	2293	55.761	5.668	151.812	1.00	37.06
ATOM	3221	CB	ILE	2293	54.772	5.220	150.740	1.00	35.63
ATOM	3222	CG2	ILE	2293	53.512	4.692	151.384	1.00	35.81
ATOM	3223	CG1	ILE	2293	54.441	6.399	149.837	1.00	35.30
ATOM	3224	CD1	ILE	2293	53.900	7.592	150.575	1.00	38.63
ATOM	3225	C	ILE	2293	56.243	4.438	152.565	1.00	39.27
ATOM	3226	O	ILE	2293	57.374	3.979	152.395	1.00	39.33
ATOM	3227	N	GLU	2294	55.362	3.926	153.413	1.00	41.94
ATOM	3228	CA	GLU	2294	55.619	2.731	154.192	1.00	45.71
ATOM	3229	CB	GLU	2294	55.745	3.080	155.680	1.00	44.67
ATOM	3230	C	GLU	2294	54.378	1.878	153.936	1.00	48.77
ATOM	3231	O	GLU	2294	53.269	2.292	154.270	1.00	49.30
ATOM	3232	N	VAL	2295	54.550	0.711	153.316	1.00	52.41
ATOM	3233	CA	VAL	2295	53.409	-0.166	153.033	1.00	55.38
ATOM	3234	CB	VAL	2295	53.689	-1.086	151.812	1.00	55.33
ATOM	3235	CG1	VAL	2295	52.454	-1.913	151.468	1.00	55.99
ATOM	3236	CG2	VAL	2295	54.073	-0.247	150.618	1.00	55.54
ATOM	3237	C	VAL	2295	53.081	-1.003	154.276	1.00	57.06
ATOM	3238	O	VAL	2295	52.143	-1.806	154.282	1.00	57.53
ATOM	3239	N	ASN	2296	53.871	-0.774	155.324	1.00	58.69
ATOM	3240	CA	ASN	2296	53.754	-1.401	156.643	1.00	59.89
ATOM	3241	CB	ASN	2296	54.078	-2.893	156.586	1.00	60.71
ATOM	3242	CG	ASN	2296	53.175	-3.645	155.646	1.00	63.08
ATOM	3243	OD1	ASN	2296	51.976	-3.787	155.901	1.00	63.11
ATOM	3244	ND2	ASN	2296	53.736	-4.117	154.534	1.00	64.26
ATOM	3245	C	ASN	2296	54.845	-0.689	157.427	1.00	60.02
ATOM	3246	O	ASN	2296	55.143	0.477	157.164	1.00	59.99
ATOM	3247	N	GLY	2297	55.445	-1.380	158.387	1.00	60.38
ATOM	3248	CA	GLY	2297	56.538	-0.774	159.122	1.00	59.68

Table 6

ATOM	3249	C	GLY	2297	57.721	-0.845	158.168	1.00	59.19
ATOM	3250	O	GLY	2297	58.866	-0.575	158.538	1.00	60.10
ATOM	3251	N	SER	2298	57.420	-1.216	156.923	1.00	57.45
ATOM	3252	CA	SER	2298	58.413	-1.360	155.868	1.00	55.47
ATOM	3253	CB	SER	2298	58.111	-2.601	155.031	1.00	55.58
ATOM	3254	OG	SER	2298	56.830	-2.494	154.431	1.00	56.51
ATOM	3255	C	SER	2298	58.413	-0.149	154.960	1.00	54.17
ATOM	3256	O	SER	2298	57.396	0.183	154.351	1.00	53.71
ATOM	3257	N	LYS	2299	59.565	0.503	154.872	1.00	52.79
ATOM	3258	CA	LYS	2299	59.717	1.673	154.027	1.00	51.38
ATOM	3259	CB	LYS	2299	60.450	2.779	154.795	1.00	51.47
ATOM	3260	CG	LYS	2299	59.620	3.315	155.958	1.00	52.71
ATOM	3261	CD	LYS	2299	60.371	4.258	156.888	1.00	53.68
ATOM	3262	CE	LYS	2299	59.521	4.555	158.132	1.00	54.50
ATOM	3263	NZ	LYS	2299	60.194	5.439	159.126	1.00	53.51
ATOM	3264	C	LYS	2299	60.490	1.242	152.794	1.00	50.17
ATOM	3265	O	LYS	2299	60.744	2.034	151.885	1.00	49.68
ATOM	3266	N	ILE	2300	60.841	-0.040	152.770	1.00	48.86
ATOM	3267	CA	ILE	2300	61.578	-0.619	151.657	1.00	47.52
ATOM	3268	CB	ILE	2300	62.953	-1.145	152.116	1.00	45.85
ATOM	3269	CG2	ILE	2300	63.751	-1.628	150.920	1.00	44.48
ATOM	3270	CG1	ILE	2300	63.726	-0.028	152.810	1.00	44.67
ATOM	3271	CD1	ILE	2300	63.996	1.184	151.917	1.00	43.92
ATOM	3272	C	ILE	2300	60.790	-1.763	151.030	1.00	47.39
ATOM	3273	O	ILE	2300	60.215	-2.592	151.727	1.00	47.74
ATOM	3274	N	GLY	2301	60.767	-1.793	149.704	1.00	47.56
ATOM	3275	CA	GLY	2301	60.055	-2.838	148.995	1.00	47.21
ATOM	3276	C	GLY	2301	60.917	-4.057	148.717	1.00	47.10
ATOM	3277	O	GLY	2301	62.140	-4.031	148.908	1.00	46.68
ATOM	3278	N	PRO	2302	60.298	-5.155	148.259	1.00	46.75
ATOM	3279	CD	PRO	2302	58.848	-5.306	148.038	1.00	46.14
ATOM	3280	CA	PRO	2302	60.998	-6.403	147.949	1.00	45.69
ATOM	3281	CB	PRO	2302	59.943	-7.193	147.187	1.00	45.56
ATOM	3282	CG	PRO	2302	58.695	-6.813	147.918	1.00	45.16
ATOM	3283	C	PRO	2302	62.285	-6.211	147.155	1.00	44.61
ATOM	3284	O	PRO	2302	63.273	-6.889	147.411	1.00	44.15
ATOM	3285	N	ASP	2303	62.270	-5.285	146.200	1.00	44.35
ATOM	3286	CA	ASP	2303	63.447	-5.014	145.377	1.00	43.97
ATOM	3287	CB	ASP	2303	63.034	-4.353	144.058	1.00	44.64
ATOM	3288	CG	ASP	2303	62.144	-3.146	144.259	1.00	45.77
ATOM	3289	OD1	ASP	2303	61.861	-2.450	143.262	1.00	46.62
ATOM	3290	OD2	ASP	2303	61.719	-2.893	145.407	1.00	46.99
ATOM	3291	C	ASP	2303	64.497	-4.144	146.067	1.00	43.64
ATOM	3292	O	ASP	2303	65.417	-3.656	145.426	1.00	43.58
ATOM	3293	N	ASN	2304	64.356	-3.957	147.373	1.00	43.36
ATOM	3294	CA	ASN	2304	65.294	-3.154	148.145	1.00	43.46
ATOM	3295	CB	ASN	2304	66.703	-3.767	148.086	1.00	43.04
ATOM	3296	CG	ASN	2304	67.536	-3.457	149.334	1.00	42.69
ATOM	3297	OD1	ASN	2304	67.156	-3.807	150.454	1.00	43.07
ATOM	3298	ND2	ASN	2304	68.674	-2.801	149.142	1.00	42.29
ATOM	3299	C	ASN	2304	65.330	-1.694	147.685	1.00	43.63
ATOM	3300	O	ASN	2304	66.373	-1.032	147.732	1.00	44.41
ATOM	3301	N	LEU	2305	64.189	-1.199	147.217	1.00	43.10
ATOM	3302	CA	LEU	2305	64.072	0.198	146.806	1.00	42.32
ATOM	3303	CB	LEU	2305	63.580	0.335	145.359	1.00	43.10
ATOM	3304	CG	LEU	2305	64.518	0.106	144.166	1.00	43.78

Table 6

ATOM	3305	CD1	LEU	2305	65.804	0.884	144.359	1.00	43.80
ATOM	3306	CD2	LEU	2305	64.821	-1.368	144.028	1.00	44.83
ATOM	3307	C	LEU	2305	63.028	0.773	147.748	1.00	41.36
ATOM	3308	O	LEU	2305	62.285	0.026	148.377	1.00	41.91
ATOM	3309	N	PRO	2306	62.959	2.102	147.866	1.00	39.92
ATOM	3310	CD	PRO	2306	63.946	3.081	147.384	1.00	39.37
ATOM	3311	CA	PRO	2306	61.980	2.739	148.754	1.00	38.59
ATOM	3312	CB	PRO	2306	62.674	4.038	149.126	1.00	38.32
ATOM	3313	CG	PRO	2306	63.337	4.402	147.837	1.00	38.73
ATOM	3314	C	PRO	2306	60.608	2.989	148.114	1.00	37.71
ATOM	3315	O	PRO	2306	60.527	3.486	146.987	1.00	37.51
ATOM	3316	N	TYR	2307	59.535	2.643	148.833	1.00	36.33
ATOM	3317	CA	TYR	2307	58.180	2.862	148.334	1.00	34.33
ATOM	3318	CB	TYR	2307	57.125	2.304	149.286	1.00	34.31
ATOM	3319	CG	TYR	2307	57.182	0.824	149.564	1.00	34.95
ATOM	3320	CD1	TYR	2307	57.601	0.353	150.809	1.00	36.33
ATOM	3321	CE1	TYR	2307	57.585	-1.004	151.117	1.00	36.54
ATOM	3322	CD2	TYR	2307	56.753	-0.107	148.620	1.00	35.00
ATOM	3323	CE2	TYR	2307	56.733	-1.476	148.917	1.00	36.35
ATOM	3324	CZ	TYR	2307	57.150	-1.914	150.172	1.00	36.96
ATOM	3325	OH	TYR	2307	57.129	-3.255	150.495	1.00	36.36
ATOM	3326	C	TYR	2307	57.994	4.364	148.276	1.00	33.55
ATOM	3327	O	TYR	2307	58.064	5.036	149.292	1.00	33.97
ATOM	3328	N	VAL	2308	57.744	4.901	147.098	1.00	32.60
ATOM	3329	CA	VAL	2308	57.574	6.337	146.980	1.00	32.06
ATOM	3330	CB	VAL	2308	58.792	6.988	146.319	1.00	32.31
ATOM	3331	CG1	VAL	2308	59.938	7.053	147.309	1.00	33.39
ATOM	3332	CG2	VAL	2308	59.193	6.194	145.085	1.00	30.33
ATOM	3333	C	VAL	2308	56.356	6.749	146.194	1.00	31.70
ATOM	3334	O	VAL	2308	55.769	5.970	145.462	1.00	32.93
ATOM	3335	N	GLN	2309	55.992	8.007	146.348	1.00	31.09
ATOM	3336	CA	GLN	2309	54.852	8.561	145.656	1.00	30.56
ATOM	3337	CB	GLN	2309	53.779	8.899	146.680	1.00	31.43
ATOM	3338	CG	GLN	2309	52.448	9.284	146.111	1.00	34.85
ATOM	3339	CD	GLN	2309	51.490	9.728	147.202	1.00	37.78
ATOM	3340	OE1	GLN	2309	51.412	9.112	148.273	1.00	39.39
ATOM	3341	NE2	GLN	2309	50.751	10.799	146.936	1.00	39.29
ATOM	3342	C	GLN	2309	55.317	9.822	144.914	1.00	29.60
ATOM	3343	O	GLN	2309	55.737	10.805	145.530	1.00	30.26
ATOM	3344	N	ILE	2310	55.285	9.784	143.589	1.00	27.79
ATOM	3345	CA	ILE	2310	55.688	10.948	142.822	1.00	26.22
ATOM	3346	CB	ILE	2310	55.675	10.656	141.314	1.00	24.98
ATOM	3347	CG2	ILE	2310	56.189	11.847	140.533	1.00	23.09
ATOM	3348	CG1	ILE	2310	56.533	9.429	141.037	1.00	24.99
ATOM	3349	CD1	ILE	2310	57.879	9.459	141.724	1.00	23.91
ATOM	3350	C	ILE	2310	54.658	12.016	143.133	1.00	26.61
ATOM	3351	O	ILE	2310	53.460	11.752	143.093	1.00	27.09
ATOM	3352	N	LEU	2311	55.117	13.218	143.458	1.00	26.14
ATOM	3353	CA	LEU	2311	54.202	14.301	143.785	1.00	25.19
ATOM	3354	CB	LEU	2311	54.504	14.839	145.183	1.00	24.23
ATOM	3355	CG	LEU	2311	54.577	13.816	146.316	1.00	23.86
ATOM	3356	CD1	LEU	2311	55.022	14.515	147.555	1.00	25.05
ATOM	3357	CD2	LEU	2311	53.242	13.158	146.551	1.00	22.35
ATOM	3358	C	LEU	2311	54.261	15.448	142.790	1.00	25.59
ATOM	3359	O	LEU	2311	53.276	16.156	142.600	1.00	26.28
ATOM	3360	N	LYS	2312	55.405	15.620	142.142	1.00	25.78

Table 6

ATOM	3361	CA	LYS	2312	55.592	16.714	141.197	1.00	25.94
ATOM	3362	CB	LYS	2312	55.973	17.969	141.988	1.00	26.21
ATOM	3363	CG	LYS	2312	55.700	19.283	141.305	1.00	27.55
ATOM	3364	CD	LYS	2312	55.687	20.408	142.335	1.00	27.49
ATOM	3365	CE	LYS	2312	55.331	21.753	141.713	1.00	26.53
ATOM	3366	NZ	LYS	2312	55.102	22.769	142.780	1.00	26.35
ATOM	3367	C	LYS	2312	56.701	16.320	140.220	1.00	26.55
ATOM	3368	O	LYS	2312	57.722	15.756	140.625	1.00	27.08
ATOM	3369	N	THR	2313	56.509	16.610	138.937	1.00	26.65
ATOM	3370	CA	THR	2313	57.507	16.237	137.937	1.00	27.27
ATOM	3371	CB	THR	2313	57.049	15.020	137.142	1.00	25.47
ATOM	3372	OG1	THR	2313	55.968	14.397	137.834	1.00	26.44
ATOM	3373	CG2	THR	2313	58.172	14.024	136.977	1.00	24.30
ATOM	3374	C	THR	2313	57.726	17.347	136.938	1.00	28.50
ATOM	3375	O	THR	2313	56.771	17.827	136.333	1.00	29.05
ATOM	3376	N	ALA	2314	58.981	17.737	136.744	1.00	29.23
ATOM	3377	CA	ALA	2314	59.301	18.800	135.806	1.00	30.80
ATOM	3378	CB	ALA	2314	60.802	19.052	135.807	1.00	31.98
ATOM	3379	C	ALA	2314	58.836	18.425	134.409	1.00	31.39
ATOM	3380	O	ALA	2314	58.810	17.249	134.051	1.00	32.01
ATOM	3381	N	GLY	2315	58.470	19.426	133.617	1.00	31.57
ATOM	3382	CA	GLY	2315	58.026	19.151	132.265	1.00	31.47
ATOM	3383	C	GLY	2315	57.150	20.257	131.726	1.00	32.10
ATOM	3384	O	GLY	2315	56.911	21.264	132.394	1.00	32.59
ATOM	3385	N	VAL	2316	56.656	20.065	130.514	1.00	32.49
ATOM	3386	CA	VAL	2316	55.811	21.055	129.881	1.00	33.21
ATOM	3387	CB	VAL	2316	55.371	20.559	128.509	1.00	32.94
ATOM	3388	CG1	VAL	2316	54.382	21.522	127.913	1.00	36.27
ATOM	3389	CG2	VAL	2316	56.581	20.426	127.602	1.00	31.90
ATOM	3390	C	VAL	2316	54.582	21.416	130.710	1.00	34.17
ATOM	3391	O	VAL	2316	54.135	22.554	130.704	1.00	34.38
ATOM	3392	N	ASN	2317	54.040	20.452	131.433	1.00	36.03
ATOM	3393	CA	ASN	2317	52.853	20.715	132.233	1.00	37.90
ATOM	3394	CB	ASN	2317	52.062	19.416	132.430	1.00	41.91
ATOM	3395	CG	ASN	2317	51.529	18.844	131.115	1.00	44.25
ATOM	3396	OD1	ASN	2317	51.106	17.688	131.060	1.00	46.64
ATOM	3397	ND2	ASN	2317	51.539	19.656	130.058	1.00	44.82
ATOM	3398	C	ASN	2317	53.196	21.336	133.578	1.00	37.48
ATOM	3399	O	ASN	2317	52.357	21.998	134.204	1.00	38.61
ATOM	3400	N	THR	2318	54.436	21.127	134.003	1.00	35.92
ATOM	3401	CA	THR	2318	54.920	21.636	135.268	1.00	34.27
ATOM	3402	CB	THR	2318	55.033	20.511	136.263	1.00	34.40
ATOM	3403	OG1	THR	2318	53.888	19.665	136.140	1.00	34.31
ATOM	3404	CG2	THR	2318	55.112	21.061	137.669	1.00	36.18
ATOM	3405	C	THR	2318	56.302	22.168	135.001	1.00	33.31
ATOM	3406	O	THR	2318	57.287	21.446	135.144	1.00	33.84
ATOM	3407	N	THR	2319	56.372	23.429	134.608	1.00	31.80
ATOM	3408	CA	THR	2319	57.637	24.061	134.288	1.00	30.00
ATOM	3409	CB	THR	2319	57.360	25.345	133.542	1.00	29.99
ATOM	3410	OG1	THR	2319	56.618	25.018	132.363	1.00	26.20
ATOM	3411	CG2	THR	2319	58.658	26.054	133.166	1.00	31.40
ATOM	3412	C	THR	2319	58.546	24.312	135.485	1.00	29.12
ATOM	3413	O	THR	2319	58.094	24.386	136.624	1.00	29.08
ATOM	3414	N	ASP	2320	59.836	24.441	135.212	1.00	28.31
ATOM	3415	CA	ASP	2320	60.807	24.655	136.260	1.00	28.93
ATOM	3416	CB	ASP	2320	62.215	24.767	135.625	1.00	25.80

Table 6

ATOM	3417	CG	ASP	2320	62.652	23.462	134.890	1.00	24.47
ATOM	3418	OD1	ASP	2320	62.224	22.354	135.281	1.00	22.80
ATOM	3419	OD2	ASP	2320	63.447	23.527	133.925	1.00	22.27
ATOM	3420	C	ASP	2320	60.451	25.857	137.164	1.00	31.01
ATOM	3421	O	ASP	2320	60.950	25.977	138.281	1.00	32.39
ATOM	3422	N	LYS	2321	59.558	26.723	136.697	1.00	33.47
ATOM	3423	CA	LYS	2321	59.140	27.884	137.476	1.00	35.16
ATOM	3424	CB	LYS	2321	58.009	28.623	136.758	1.00	36.60
ATOM	3425	CG	LYS	2321	58.167	28.692	135.255	1.00	40.39
ATOM	3426	CD	LYS	2321	56.971	29.396	134.595	1.00	43.03
ATOM	3427	CE	LYS	2321	56.860	29.066	133.076	1.00	43.90
ATOM	3428	NZ	LYS	2321	58.066	29.382	132.239	1.00	40.93
ATOM	3429	C	LYS	2321	58.635	27.442	138.846	1.00	36.16
ATOM	3430	O	LYS	2321	59.090	27.923	139.882	1.00	37.35
ATOM	3431	N	GLU	2322	57.687	26.516	138.843	1.00	36.64
ATOM	3432	CA	GLU	2322	57.104	26.038	140.082	1.00	38.06
ATOM	3433	CB	GLU	2322	55.611	25.818	139.876	1.00	40.30
ATOM	3434	CG	GLU	2322	55.279	25.252	138.516	1.00	42.80
ATOM	3435	CD	GLU	2322	53.782	25.177	138.265	1.00	45.28
ATOM	3436	OE1	GLU	2322	53.099	24.367	138.938	1.00	46.14
ATOM	3437	OE2	GLU	2322	53.291	25.932	137.393	1.00	45.44
ATOM	3438	C	GLU	2322	57.727	24.785	140.674	1.00	37.57
ATOM	3439	O	GLU	2322	57.266	24.299	141.703	1.00	37.88
ATOM	3440	N	MET	2323	58.782	24.274	140.051	1.00	37.12
ATOM	3441	CA	MET	2323	59.422	23.054	140.533	1.00	36.36
ATOM	3442	CB	MET	2323	60.233	22.387	139.413	1.00	35.76
ATOM	3443	CG	MET	2323	59.388	21.689	138.343	1.00	34.71
ATOM	3444	SD	MET	2323	58.178	20.516	139.009	1.00	33.46
ATOM	3445	CE	MET	2323	59.263	19.280	139.761	1.00	34.08
ATOM	3446	C	MET	2323	60.308	23.200	141.755	1.00	36.28
ATOM	3447	O	MET	2323	60.597	22.213	142.426	1.00	35.30
ATOM	3448	N	GLU	2324	60.744	24.411	142.063	1.00	37.11
ATOM	3449	CA	GLU	2324	61.601	24.563	143.227	1.00	38.55
ATOM	3450	CB	GLU	2324	62.547	25.750	143.028	1.00	40.58
ATOM	3451	CG	GLU	2324	63.556	25.485	141.907	1.00	42.57
ATOM	3452	CD	GLU	2324	64.704	26.486	141.850	1.00	43.05
ATOM	3453	OE1	GLU	2324	64.438	27.689	141.632	1.00	44.25
ATOM	3454	OE2	GLU	2324	65.873	26.063	142.014	1.00	41.59
ATOM	3455	C	GLU	2324	60.855	24.653	144.565	1.00	38.27
ATOM	3456	O	GLU	2324	61.471	24.819	145.616	1.00	37.49
ATOM	3457	N	VAL	2325	59.533	24.503	144.532	1.00	37.66
ATOM	3458	CA	VAL	2325	58.750	24.565	145.754	1.00	37.45
ATOM	3459	CB	VAL	2325	58.252	25.987	146.008	1.00	37.38
ATOM	3460	CG1	VAL	2325	57.319	26.409	144.893	1.00	38.00
ATOM	3461	CG2	VAL	2325	57.548	26.056	147.342	1.00	38.48
ATOM	3462	C	VAL	2325	57.550	23.620	145.747	1.00	37.40
ATOM	3463	O	VAL	2325	56.720	23.649	144.841	1.00	38.13
ATOM	3464	N	LEU	2326	57.469	22.788	146.781	1.00	37.18
ATOM	3465	CA	LEU	2326	56.392	21.815	146.936	1.00	36.35
ATOM	3466	CB	LEU	2326	56.961	20.471	147.396	1.00	34.79
ATOM	3467	CG	LEU	2326	55.955	19.339	147.516	1.00	33.40
ATOM	3468	CD1	LEU	2326	55.279	19.158	146.182	1.00	33.58
ATOM	3469	CD2	LEU	2326	56.657	18.064	147.931	1.00	31.96
ATOM	3470	C	LEU	2326	55.403	22.321	147.974	1.00	37.00
ATOM	3471	O	LEU	2326	55.769	22.553	149.125	1.00	36.12
ATOM	3472	N	HIS	2327	54.149	22.489	147.564	1.00	38.27

Table 6

ATOM	3473	CA	HIS	2327	53.112	22.975	148.466	1.00	38.34
ATOM	3474	CB	HIS	2327	52.195	23.963	147.741	1.00	40.16
ATOM	3475	CG	HIS	2327	52.866	25.242	147.342	1.00	43.09
ATOM	3476	CD2	HIS	2327	53.264	25.701	146.130	1.00	42.98
ATOM	3477	ND1	HIS	2327	53.198	26.226	148.252	1.00	43.74
ATOM	3478	CE1	HIS	2327	53.768	27.236	147.617	1.00	43.62
ATOM	3479	NE2	HIS	2327	53.821	26.943	146.329	1.00	44.01
ATOM	3480	C	HIS	2327	52.269	21.835	149.018	1.00	38.16
ATOM	3481	O	HIS	2327	51.658	21.074	148.267	1.00	38.38
ATOM	3482	N	LEU	2328	52.244	21.720	150.340	1.00	37.91
ATOM	3483	CA	LEU	2328	51.461	20.696	151.012	1.00	37.84
ATOM	3484	CB	LEU	2328	52.318	19.939	152.034	1.00	36.72
ATOM	3485	CG	LEU	2328	53.402	18.969	151.535	1.00	36.31
ATOM	3486	CD1	LEU	2328	54.295	18.550	152.683	1.00	35.20
ATOM	3487	CD2	LEU	2328	52.757	17.751	150.909	1.00	36.53
ATOM	3488	C	LEU	2328	50.362	21.449	151.725	1.00	39.07
ATOM	3489	O	LEU	2328	50.593	22.023	152.789	1.00	39.32
ATOM	3490	N	ARG	2329	49.169	21.459	151.137	1.00	40.36
ATOM	3491	CA	ARG	2329	48.052	22.175	151.738	1.00	41.25
ATOM	3492	CB	ARG	2329	47.116	22.703	150.650	1.00	41.14
ATOM	3493	C	ARG	2329	47.273	21.355	152.769	1.00	42.07
ATOM	3494	O	ARG	2329	47.039	20.154	152.601	1.00	41.21
ATOM	3495	N	ASN	2330	46.897	22.039	153.847	1.00	43.83
ATOM	3496	CA	ASN	2330	46.151	21.463	154.962	1.00	45.93
ATOM	3497	CB	ASN	2330	44.652	21.498	154.676	1.00	49.05
ATOM	3498	CG	ASN	2330	43.834	21.086	155.877	1.00	52.00
ATOM	3499	OD1	ASN	2330	43.787	19.907	156.235	1.00	53.82
ATOM	3500	ND2	ASN	2330	43.201	22.063	156.527	1.00	53.24
ATOM	3501	C	ASN	2330	46.576	20.043	155.276	1.00	45.58
ATOM	3502	O	ASN	2330	45.868	19.085	154.973	1.00	45.29
ATOM	3503	N	VAL	2331	47.733	19.928	155.914	1.00	45.27
ATOM	3504	CA	VAL	2331	48.328	18.647	156.266	1.00	44.77
ATOM	3505	CB	VAL	2331	49.705	18.893	156.864	1.00	43.57
ATOM	3506	CG1	VAL	2331	50.467	19.858	155.978	1.00	42.63
ATOM	3507	CG2	VAL	2331	49.566	19.469	158.248	1.00	42.71
ATOM	3508	C	VAL	2331	47.520	17.772	157.218	1.00	44.99
ATOM	3509	O	VAL	2331	46.598	18.235	157.878	1.00	46.10
ATOM	3510	N	SER	2332	47.891	16.499	157.278	1.00	45.10
ATOM	3511	CA	SER	2332	47.237	15.517	158.131	1.00	45.49
ATOM	3512	CB	SER	2332	46.184	14.756	157.334	1.00	44.55
ATOM	3513	OG	SER	2332	46.716	14.303	156.100	1.00	42.28
ATOM	3514	C	SER	2332	48.304	14.555	158.612	1.00	46.64
ATOM	3515	O	SER	2332	49.397	14.523	158.056	1.00	47.33
ATOM	3516	N	PHE	2333	47.994	13.770	159.639	1.00	47.66
ATOM	3517	CA	PHE	2333	48.956	12.812	160.168	1.00	48.81
ATOM	3518	CB	PHE	2333	48.298	11.942	161.235	1.00	50.74
ATOM	3519	CG	PHE	2333	48.494	12.451	162.627	1.00	53.07
ATOM	3520	CD1	PHE	2333	48.721	11.561	163.679	1.00	54.72
ATOM	3521	CD2	PHE	2333	48.475	13.817	162.890	1.00	53.83
ATOM	3522	CE1	PHE	2333	48.932	12.026	164.984	1.00	56.27
ATOM	3523	CE2	PHE	2333	48.684	14.298	164.184	1.00	56.09
ATOM	3524	CZ	PHE	2333	48.914	13.397	165.238	1.00	56.78
ATOM	3525	C	PHE	2333	49.532	11.927	159.065	1.00	48.00
ATOM	3526	O	PHE	2333	50.653	11.419	159.167	1.00	47.65
ATOM	3527	N	GLU	2334	48.749	11.756	158.009	1.00	47.38
ATOM	3528	CA	GLU	2334	49.150	10.937	156.882	1.00	46.61

Table 6

ATOM	3529	CB	GLU	2334	47.984	10.764	155.897	1.00	48.93
ATOM	3530	CG	GLU	2334	46.775	9.973	156.415	1.00	53.50
ATOM	3531	CD	GLU	2334	45.860	10.760	157.379	1.00	57.12
ATOM	3532	OE1	GLU	2334	46.224	10.929	158.572	1.00	58.37
ATOM	3533	OE2	GLU	2334	44.768	11.208	156.941	1.00	57.75
ATOM	3534	C	GLU	2334	50.318	11.595	156.170	1.00	44.79
ATOM	3535	O	GLU	2334	51.326	10.955	155.895	1.00	44.39
ATOM	3536	N	ASP	2335	50.181	12.882	155.879	1.00	42.84
ATOM	3537	CA	ASP	2335	51.230	13.618	155.181	1.00	41.47
ATOM	3538	CB	ASP	2335	50.817	15.073	154.958	1.00	42.11
ATOM	3539	CG	ASP	2335	49.568	15.199	154.119	1.00	42.52
ATOM	3540	OD1	ASP	2335	49.399	14.405	153.163	1.00	40.64
ATOM	3541	OD2	ASP	2335	48.763	16.110	154.414	1.00	43.61
ATOM	3542	C	ASP	2335	52.559	13.594	155.920	1.00	39.66
ATOM	3543	O	ASP	2335	53.599	13.957	155.370	1.00	38.79
ATOM	3544	N	ALA	2336	52.523	13.178	157.176	1.00	37.90
ATOM	3545	CA	ALA	2336	53.732	13.110	157.972	1.00	35.84
ATOM	3546	CB	ALA	2336	53.402	12.565	159.357	1.00	35.87
ATOM	3547	C	ALA	2336	54.711	12.193	157.257	1.00	34.69
ATOM	3548	O	ALA	2336	54.307	11.198	156.646	1.00	34.69
ATOM	3549	N	GLY	2337	55.994	12.523	157.318	1.00	32.66
ATOM	3550	CA	GLY	2337	56.966	11.679	156.659	1.00	31.48
ATOM	3551	C	GLY	2337	58.111	12.389	155.972	1.00	30.67
ATOM	3552	O	GLY	2337	58.294	13.590	156.108	1.00	30.86
ATOM	3553	N	GLU	2338	58.879	11.624	155.211	1.00	29.73
ATOM	3554	CA	GLU	2338	60.037	12.137	154.515	1.00	29.01
ATOM	3555	CB	GLU	2338	61.181	11.145	154.647	1.00	29.00
ATOM	3556	CG	GLU	2338	62.364	11.401	153.752	1.00	29.50
ATOM	3557	CD	GLU	2338	63.415	10.343	153.957	1.00	30.76
ATOM	3558	OE1	GLU	2338	63.021	9.169	154.106	1.00	31.01
ATOM	3559	OE2	GLU	2338	64.622	10.668	153.974	1.00	31.61
ATOM	3560	C	GLU	2338	59.799	12.436	153.052	1.00	28.96
ATOM	3561	O	GLU	2338	59.389	11.573	152.284	1.00	30.22
ATOM	3562	N	TYR	2339	60.071	13.672	152.668	1.00	27.97
ATOM	3563	CA	TYR	2339	59.906	14.075	151.291	1.00	27.40
ATOM	3564	CB	TYR	2339	59.145	15.395	151.216	1.00	27.47
ATOM	3565	CG	TYR	2339	57.696	15.266	151.646	1.00	28.45
ATOM	3566	CD1	TYR	2339	57.359	14.954	152.970	1.00	27.51
ATOM	3567	CE1	TYR	2339	56.035	14.821	153.361	1.00	26.85
ATOM	3568	CD2	TYR	2339	56.658	15.441	150.724	1.00	27.65
ATOM	3569	CE2	TYR	2339	55.338	15.310	151.106	1.00	26.77
ATOM	3570	CZ	TYR	2339	55.031	15.001	152.422	1.00	27.88
ATOM	3571	OH	TYR	2339	53.710	14.862	152.783	1.00	30.57
ATOM	3572	C	TYR	2339	61.286	14.200	150.670	1.00	27.30
ATOM	3573	O	TYR	2339	62.271	14.467	151.360	1.00	27.32
ATOM	3574	N	THR	2340	61.354	14.004	149.360	1.00	26.14
ATOM	3575	CA	THR	2340	62.623	14.057	148.677	1.00	25.92
ATOM	3576	CB	THR	2340	63.077	12.645	148.289	1.00	25.98
ATOM	3577	OG1	THR	2340	63.349	11.894	149.477	1.00	26.37
ATOM	3578	CG2	THR	2340	64.316	12.700	147.426	1.00	24.86
ATOM	3579	C	THR	2340	62.582	14.891	147.424	1.00	26.30
ATOM	3580	O	THR	2340	61.628	14.830	146.662	1.00	26.81
ATOM	3581	N	CYS	2341	63.627	15.679	147.224	1.00	26.04
ATOM	3582	CA	CYS	2341	63.723	16.482	146.035	1.00	26.62
ATOM	3583	C	CYS	2341	64.785	15.782	145.252	1.00	27.07
ATOM	3584	O	CYS	2341	65.926	15.682	145.698	1.00	28.08

Table 5

ATOM	3585	CB	CYS	2341	64.186	17.890	146.341	1.00	28.45
ATOM	3586	SG	CYS	2341	64.529	18.842	144.834	1.00	26.76
ATOM	3587	N	LEU	2342	64.394	15.280	144.092	1.00	27.03
ATOM	3588	CA	LEU	2342	65.290	14.552	143.221	1.00	26.61
ATOM	3589	CB	LEU	2342	64.696	13.172	142.917	1.00	25.47
ATOM	3590	CG	LEU	2342	65.260	12.404	141.723	1.00	26.27
ATOM	3591	CD1	LEU	2342	66.785	12.333	141.808	1.00	26.88
ATOM	3592	CD2	LEU	2342	64.648	11.020	141.685	1.00	25.17
ATOM	3593	C	LEU	2342	65.473	15.330	141.940	1.00	27.03
ATOM	3594	O	LEU	2342	64.501	15.725	141.301	1.00	29.20
ATOM	3595	N	ALA	2343	66.722	15.561	141.565	1.00	25.87
ATOM	3596	CA	ALA	2343	67.009	16.282	140.339	1.00	24.38
ATOM	3597	CB	ALA	2343	67.383	17.698	140.648	1.00	25.43
ATOM	3598	C	ALA	2343	68.159	15.582	139.658	1.00	23.96
ATOM	3599	O	ALA	2343	69.145	15.229	140.300	1.00	22.49
ATOM	3600	N	GLY	2344	68.031	15.365	138.357	1.00	23.92
ATOM	3601	CA	GLY	2344	69.092	14.693	137.644	1.00	24.37
ATOM	3602	C	GLY	2344	69.197	15.126	136.206	1.00	25.75
ATOM	3603	O	GLY	2344	68.211	15.535	135.602	1.00	27.54
ATOM	3604	N	ASN	2345	70.405	15.068	135.666	1.00	26.24
ATOM	3605	CA	ASN	2345	70.623	15.412	134.277	1.00	26.80
ATOM	3606	CB	ASN	2345	71.532	16.641	134.132	1.00	26.94
ATOM	3607	CG	ASN	2345	72.889	16.461	134.784	1.00	26.87
ATOM	3608	OD1	ASN	2345	73.504	15.402	134.694	1.00	27.94
ATOM	3609	ND2	ASN	2345	73.375	17.514	135.427	1.00	26.75
ATOM	3610	C	ASN	2345	71.259	14.193	133.632	1.00	27.51
ATOM	3611	O	ASN	2345	71.281	13.116	134.225	1.00	25.72
ATOM	3612	N	SER	2346	71.779	14.363	132.425	1.00	28.32
ATOM	3613	CA	SER	2346	72.400	13.261	131.709	1.00	29.50
ATOM	3614	CB	SER	2346	72.668	13.698	130.268	1.00	30.89
ATOM	3615	OG	SER	2346	73.341	12.687	129.542	1.00	31.93
ATOM	3616	C	SER	2346	73.700	12.742	132.324	1.00	28.96
ATOM	3617	O	SER	2346	74.239	11.736	131.880	1.00	30.38
ATOM	3618	N	ILE	2347	74.206	13.418	133.343	1.00	28.17
ATOM	3619	CA	ILE	2347	75.463	13.012	133.948	1.00	28.00
ATOM	3620	CB	ILE	2347	76.346	14.236	134.206	1.00	26.86
ATOM	3621	CG2	ILE	2347	77.646	13.823	134.859	1.00	25.01
ATOM	3622	CG1	ILE	2347	76.607	14.955	132.886	1.00	27.00
ATOM	3623	CD1	ILE	2347	77.300	16.281	133.041	1.00	26.83
ATOM	3624	C	ILE	2347	75.292	12.257	135.247	1.00	29.80
ATOM	3625	O	ILE	2347	76.087	11.374	135.568	1.00	30.99
ATOM	3626	N	GLY	2348	74.266	12.605	136.010	1.00	30.31
ATOM	3627	CA	GLY	2348	74.052	11.918	137.267	1.00	31.07
ATOM	3628	C	GLY	2348	72.780	12.343	137.966	1.00	31.25
ATOM	3629	O	GLY	2348	72.037	13.181	137.449	1.00	32.24
ATOM	3630	N	LEU	2349	72.530	11.763	139.139	1.00	29.67
ATOM	3631	CA	LEU	2349	71.345	12.083	139.918	1.00	28.44
ATOM	3632	CB	LEU	2349	70.467	10.851	140.109	1.00	29.09
ATOM	3633	CG	LEU	2349	69.628	10.359	138.930	1.00	31.74
ATOM	3634	CD1	LEU	2349	68.586	11.417	138.581	1.00	31.84
ATOM	3635	CD2	LEU	2349	70.528	10.034	137.729	1.00	32.28
ATOM	3636	C	LEU	2349	71.721	12.613	141.286	1.00	27.83
ATOM	3637	O	LEU	2349	72.689	12.154	141.890	1.00	27.97
ATOM	3638	N	SER	2350	70.946	13.583	141.766	1.00	26.94
ATOM	3639	CA	SER	2350	71.151	14.188	143.076	1.00	24.05
ATOM	3640	CB	SER	2350	71.825	15.551	142.958	1.00	22.64

Table 6

ATOM	3641	OG	SER	2350	73.228	15.423	142.889	1.00	21.98
ATOM	3642	C	SER	2350	69.803	14.362	143.730	1.00	24.25
ATOM	3643	O	SER	2350	68.796	14.580	143.055	1.00	24.27
ATOM	3644	N	HIS	2351	69.784	14.268	145.051	1.00	24.81
ATOM	3645	CA	HIS	2351	68.545	14.413	145.791	1.00	25.48
ATOM	3646	CB	HIS	2351	67.769	13.106	145.770	1.00	26.54
ATOM	3647	CG	HIS	2351	68.520	11.963	146.377	1.00	28.96
ATOM	3648	CD2	HIS	2351	68.539	11.479	147.642	1.00	30.01
ATOM	3649	ND1	HIS	2351	69.435	11.213	145.667	1.00	29.42
ATOM	3650	CE1	HIS	2351	69.983	10.316	146.466	1.00	30.00
ATOM	3651	NE2	HIS	2351	69.458	10.457	147.670	1.00	31.92
ATOM	3652	C	HIS	2351	68.808	14.777	147.235	1.00	25.95
ATOM	3653	O	HIS	2351	69.811	14.378	147.809	1.00	26.85
ATOM	3654	N	HIS	2352	67.890	15.539	147.816	1.00	26.51
ATOM	3655	CA	HIS	2352	67.967	15.941	149.215	1.00	26.09
ATOM	3656	CB	HIS	2352	68.141	17.444	149.350	1.00	26.91
ATOM	3657	CG	HIS	2352	69.542	17.904	149.164	1.00	27.75
ATOM	3658	CD2	HIS	2352	70.689	17.210	148.980	1.00	28.62
ATOM	3659	ND1	HIS	2352	69.894	19.235	149.191	1.00	27.71
ATOM	3660	CE1	HIS	2352	71.200	19.341	149.036	1.00	29.91
ATOM	3661	NE2	HIS	2352	71.707	18.126	148.905	1.00	29.86
ATOM	3662	C	HIS	2352	66.632	15.582	149.812	1.00	26.59
ATOM	3663	O	HIS	2352	65.600	15.862	149.216	1.00	27.59
ATOM	3664	N	SER	2353	66.638	14.959	150.978	1.00	26.84
ATOM	3665	CA	SER	2353	65.383	14.603	151.615	1.00	27.71
ATOM	3666	CB	SER	2353	65.453	13.186	152.165	1.00	27.98
ATOM	3667	OG	SER	2353	65.621	12.260	151.105	1.00	29.93
ATOM	3668	C	SER	2353	65.100	15.588	152.730	1.00	28.03
ATOM	3669	O	SER	2353	65.860	16.533	152.930	1.00	29.62
ATOM	3670	N	ALA	2354	63.999	15.381	153.440	1.00	27.45
ATOM	3671	CA	ALA	2354	63.613	16.252	154.548	1.00	27.88
ATOM	3672	CB	ALA	2354	63.217	17.614	154.052	1.00	28.75
ATOM	3673	C	ALA	2354	62.438	15.600	155.226	1.00	28.41
ATOM	3674	O	ALA	2354	61.669	14.895	154.586	1.00	29.30
ATOM	3675	N	TRP	2355	62.292	15.837	156.519	1.00	28.44
ATOM	3676	CA	TRP	2355	61.210	15.231	157.248	1.00	28.71
ATOM	3677	CB	TRP	2355	61.763	14.530	158.468	1.00	31.13
ATOM	3678	CG	TRP	2355	61.507	13.072	158.407	1.00	37.37
ATOM	3679	CD2	TRP	2355	62.409	12.078	157.920	1.00	38.88
ATOM	3680	CE2	TRP	2355	61.718	10.838	157.941	1.00	39.14
ATOM	3681	CE3	TRP	2355	63.735	12.113	157.463	1.00	39.77
ATOM	3682	CD1	TRP	2355	60.331	12.415	158.706	1.00	38.18
ATOM	3683	NE1	TRP	2355	60.455	11.074	158.425	1.00	38.62
ATOM	3684	CZ2	TRP	2355	62.311	9.646	157.519	1.00	39.98
ATOM	3685	CZ3	TRP	2355	64.324	10.932	157.044	1.00	40.99
ATOM	3686	CH2	TRP	2355	63.610	9.710	157.074	1.00	40.93
ATOM	3687	C	TRP	2355	60.099	16.170	157.663	1.00	28.81
ATOM	3688	O	TRP	2355	60.348	17.281	158.121	1.00	29.84
ATOM	3689	N	LEU	2356	58.862	15.727	157.484	1.00	28.47
ATOM	3690	CA	LEU	2356	57.719	16.526	157.889	1.00	27.92
ATOM	3691	CB	LEU	2356	56.648	16.570	156.805	1.00	26.20
ATOM	3692	CG	LEU	2356	55.726	17.794	156.877	1.00	26.11
ATOM	3693	CD1	LEU	2356	54.319	17.376	156.538	1.00	26.99
ATOM	3694	CD2	LEU	2356	55.747	18.427	158.253	1.00	25.04
ATOM	3695	C	LEU	2356	57.134	15.882	159.151	1.00	28.92
ATOM	3696	O	LEU	2356	56.722	14.716	159.143	1.00	28.83

Table 6

ATOM	3697	N	THR	2357	57.135	16.648	160.238	1.00	29.45
ATOM	3698	CA	THR	2357	56.602	16.201	161.522	1.00	30.00
ATOM	3699	CB	THR	2357	57.582	16.504	162.694	1.00	28.55
ATOM	3700	OG1	THR	2357	58.603	15.505	162.745	1.00	29.02
ATOM	3701	CG2	THR	2357	56.849	16.510	164.016	1.00	26.69
ATOM	3702	C	THR	2357	55.288	16.939	161.783	1.00	32.06
ATOM	3703	O	THR	2357	55.259	18.175	161.827	1.00	32.27
ATOM	3704	N	VAL	2358	54.206	16.181	161.956	1.00	33.20
ATOM	3705	CA	VAL	2358	52.898	16.772	162.211	1.00	34.64
ATOM	3706	CB	VAL	2358	51.846	16.259	161.211	1.00	35.47
ATOM	3707	CG1	VAL	2358	50.480	16.796	161.586	1.00	35.84
ATOM	3708	CG2	VAL	2358	52.209	16.696	159.797	1.00	36.10
ATOM	3709	C	VAL	2358	52.400	16.476	163.621	1.00	35.63
ATOM	3710	O	VAL	2358	52.435	15.330	164.071	1.00	36.05
ATOM	3711	N	LEU	2359	51.924	17.511	164.311	1.00	35.87
ATOM	3712	CA	LEU	2359	51.424	17.340	165.668	1.00	35.60
ATOM	3713	CB	LEU	2359	52.380	18.055	166.616	1.00	33.76
ATOM	3714	CG	LEU	2359	53.810	17.511	166.468	1.00	33.43
ATOM	3715	CD1	LEU	2359	54.807	18.419	167.188	1.00	30.83
ATOM	3716	CD2	LEU	2359	53.874	16.071	167.002	1.00	31.95
ATOM	3717	C	LEU	2359	49.973	17.824	165.846	1.00	36.53
ATOM	3718	O	LEU	2359	49.261	17.260	166.716	1.00	36.43
ATOM	3719	CB	MET	3149	110.903	20.490	84.760	1.00	57.84
ATOM	3720	CG	MET	3149	112.225	20.282	85.488	1.00	60.66
ATOM	3721	SD	MET	3149	113.293	19.105	84.603	1.00	64.12
ATOM	3722	CE	MET	3149	114.208	20.229	83.476	1.00	62.64
ATOM	3723	C	MET	3149	109.773	18.509	85.792	1.00	53.78
ATOM	3724	O	MET	3149	109.675	19.157	86.834	1.00	53.83
ATOM	3725	N	MET	3149	108.962	19.445	83.629	1.00	55.00
ATOM	3726	CA	MET	3149	110.163	19.183	84.475	1.00	55.34
ATOM	3727	N	PRO	3150	109.571	17.185	85.762	1.00	52.17
ATOM	3728	CD	PRO	3150	109.866	16.279	84.640	1.00	51.98
ATOM	3729	CA	PRO	3150	109.183	16.418	86.948	1.00	50.85
ATOM	3730	CB	PRO	3150	109.140	14.979	86.435	1.00	49.99
ATOM	3731	CG	PRO	3150	110.150	14.975	85.356	1.00	51.28
ATOM	3732	C	PRO	3150	110.063	16.578	88.182	1.00	49.83
ATOM	3733	O	PRO	3150	111.288	16.687	88.089	1.00	49.14
ATOM	3734	N	VAL	3151	109.402	16.602	89.338	1.00	48.76
ATOM	3735	CA	VAL	3151	110.056	16.731	90.636	1.00	46.73
ATOM	3736	CB	VAL	3151	110.317	18.214	90.995	1.00	45.76
ATOM	3737	CG1	VAL	3151	110.372	18.396	92.488	1.00	45.78
ATOM	3738	CG2	VAL	3151	111.642	18.648	90.406	1.00	46.31
ATOM	3739	C	VAL	3151	109.196	16.074	91.711	1.00	45.95
ATOM	3740	O	VAL	3151	107.983	16.300	91.789	1.00	45.41
ATOM	3741	N	ALA	3152	109.834	15.242	92.527	1.00	44.98
ATOM	3742	CA	ALA	3152	109.135	14.542	93.594	1.00	43.99
ATOM	3743	CB	ALA	3152	109.994	13.404	94.122	1.00	44.25
ATOM	3744	C	ALA	3152	108.786	15.504	94.720	1.00	42.90
ATOM	3745	O	ALA	3152	109.503	16.471	94.981	1.00	43.11
ATOM	3746	N	PRO	3153	107.675	15.245	95.411	1.00	41.61
ATOM	3747	CD	PRO	3153	106.876	14.008	95.417	1.00	40.38
ATOM	3748	CA	PRO	3153	107.284	16.132	96.504	1.00	40.65
ATOM	3749	CB	PRO	3153	106.062	15.433	97.082	1.00	41.36
ATOM	3750	CG	PRO	3153	106.355	13.984	96.820	1.00	41.00
ATOM	3751	C	PRO	3153	108.407	16.268	97.517	1.00	40.38
ATOM	3752	O	PRO	3153	109.068	15.285	97.849	1.00	40.88

Table 6

ATOM	3753	N	TYR	3154	108.633	17.479	98.004	1.00	39.09
ATOM	3754	CA	TYR	3154	109.682	17.689	98.991	1.00	37.91
ATOM	3755	CB	TYR	3154	110.971	18.119	98.296	1.00	37.75
ATOM	3756	CG	TYR	3154	110.841	19.437	97.570	1.00	40.09
ATOM	3757	CD1	TYR	3154	110.157	19.522	96.356	1.00	40.03
ATOM	3758	CE1	TYR	3154	109.999	20.751	95.704	1.00	39.70
ATOM	3759	CD2	TYR	3154	111.368	20.617	98.117	1.00	39.82
ATOM	3760	CE2	TYR	3154	111.214	21.846	97.472	1.00	38.84
ATOM	3761	CZ	TYR	3154	110.528	21.905	96.270	1.00	39.55
ATOM	3762	OH	TYR	3154	110.356	23.113	95.634	1.00	39.77
ATOM	3763	C	TYR	3154	109.274	18.739	100.026	1.00	36.94
ATOM	3764	O	TYR	3154	108.474	19.622	99.743	1.00	37.50
ATOM	3765	N	TRP	3155	109.822	18.631	101.230	1.00	35.27
ATOM	3766	CA	TRP	3155	109.518	19.574	102.299	1.00	33.87
ATOM	3767	CB	TRP	3155	110.107	19.093	103.621	1.00	32.01
ATOM	3768	CG	TRP	3155	109.573	17.786	104.143	1.00	28.02
ATOM	3769	CD2	TRP	3155	108.220	17.322	104.097	1.00	26.45
ATOM	3770	CE2	TRP	3155	108.185	16.066	104.746	1.00	25.14
ATOM	3771	CE3	TRP	3155	107.035	17.841	103.569	1.00	26.33
ATOM	3772	CD1	TRP	3155	110.281	16.824	104.802	1.00	27.15
ATOM	3773	NE1	TRP	3155	109.455	15.787	105.167	1.00	25.80
ATOM	3774	CZ2	TRP	3155	107.017	15.328	104.885	1.00	24.17
ATOM	3775	CZ3	TRP	3155	105.871	17.101	103.708	1.00	26.53
ATOM	3776	CH2	TRP	3155	105.874	15.856	104.361	1.00	24.65
ATOM	3777	C	TRP	3155	110.111	20.938	101.969	1.00	35.28
ATOM	3778	O	TRP	3155	111.311	21.051	101.712	1.00	35.18
ATOM	3779	N	THR	3156	109.273	21.972	101.983	1.00	36.76
ATOM	3780	CA	THR	3156	109.728	23.325	101.678	1.00	37.57
ATOM	3781	CB	THR	3156	108.621	24.143	101.025	1.00	35.80
ATOM	3782	OG1	THR	3156	107.605	24.430	101.990	1.00	36.19
ATOM	3783	CG2	THR	3156	108.010	23.373	99.889	1.00	34.67
ATOM	3784	C	THR	3156	110.198	24.056	102.929	1.00	39.50
ATOM	3785	O	THR	3156	111.095	24.893	102.861	1.00	39.18
ATOM	3786	N	SER	3157	109.588	23.737	104.066	1.00	42.72
ATOM	3787	CA	SER	3157	109.954	24.356	105.342	1.00	46.50
ATOM	3788	CB	SER	3157	108.848	25.302	105.822	1.00	46.20
ATOM	3789	OG	SER	3157	108.611	26.330	104.878	1.00	46.67
ATOM	3790	C	SER	3157	110.165	23.250	106.368	1.00	48.51
ATOM	3791	O	SER	3157	109.391	23.103	107.317	1.00	49.78
ATOM	3792	N	PRO	3158	111.232	22.462	106.194	1.00	49.73
ATOM	3793	CD	PRO	3158	112.328	22.734	105.255	1.00	50.01
ATOM	3794	CA	PRO	3158	111.586	21.347	107.072	1.00	51.06
ATOM	3795	CB	PRO	3158	112.908	20.870	106.490	1.00	51.19
ATOM	3796	CG	PRO	3158	113.496	22.119	105.971	1.00	50.83
ATOM	3797	C	PRO	3158	111.698	21.681	108.549	1.00	51.91
ATOM	3798	O	PRO	3158	111.358	20.861	109.402	1.00	51.46
ATOM	3799	N	GLU	3159	112.170	22.885	108.847	1.00	52.94
ATOM	3800	CA	GLU	3159	112.345	23.302	110.231	1.00	54.81
ATOM	3801	CB	GLU	3159	113.107	24.623	110.296	1.00	56.84
ATOM	3802	CG	GLU	3159	114.546	24.464	109.871	1.00	59.34
ATOM	3803	CD	GLU	3159	115.006	23.015	109.980	1.00	60.57
ATOM	3804	OE1	GLU	3159	114.875	22.424	111.085	1.00	60.07
ATOM	3805	OE2	GLU	3159	115.487	22.476	108.954	1.00	61.42
ATOM	3806	C	GLU	3159	111.070	23.415	111.032	1.00	54.75
ATOM	3807	O	GLU	3159	111.051	23.108	112.224	1.00	55.32
ATOM	3808	N	LYS	3160	110.007	23.861	110.380	1.00	53.40

Table 6

ATOM	3809	CA	LYS	3160	108.726	24.004	111.039	1.00	51.90
ATOM	3810	CB	LYS	3160	107.859	24.954	110.216	1.00	52.24
ATOM	3811	CG	LYS	3160	108.533	26.301	109.981	1.00	52.84
ATOM	3812	CD	LYS	3160	107.643	27.268	109.218	1.00	53.85
ATOM	3813	CE	LYS	3160	108.256	28.667	109.190	1.00	55.22
ATOM	3814	NZ	LYS	3160	107.372	29.643	108.476	1.00	57.31
ATOM	3815	C	LYS	3160	108.054	22.637	111.184	1.00	51.08
ATOM	3816	O	LYS	3160	106.834	22.543	111.304	1.00	50.56
ATOM	3817	N	MET	3161	108.867	21.583	111.177	1.00	49.65
ATOM	3818	CA	MET	3161	108.380	20.211	111.295	1.00	47.64
ATOM	3819	CB	MET	3161	108.561	19.473	109.966	1.00	47.44
ATOM	3820	CG	MET	3161	107.940	20.187	108.776	1.00	46.79
ATOM	3821	SD	MET	3161	107.895	19.168	107.309	1.00	45.53
ATOM	3822	CE	MET	3161	106.487	18.124	107.661	1.00	44.33
ATOM	3823	C	MET	3161	109.174	19.499	112.376	1.00	47.02
ATOM	3824	O	MET	3161	108.979	18.314	112.631	1.00	45.87
ATOM	3825	N	GLU	3162	110.072	20.245	113.006	1.00	46.47
ATOM	3826	CA	GLU	3162	110.934	19.719	114.059	1.00	45.43
ATOM	3827	CB	GLU	3162	111.932	20.793	114.506	1.00	47.92
ATOM	3828	CG	GLU	3162	113.089	21.027	113.534	1.00	50.70
ATOM	3829	CD	GLU	3162	114.183	19.977	113.665	1.00	52.22
ATOM	3830	OE1	GLU	3162	113.858	18.766	113.670	1.00	51.98
ATOM	3831	OE2	GLU	3162	115.370	20.369	113.763	1.00	54.08
ATOM	3832	C	GLU	3162	110.187	19.207	115.274	1.00	43.38
ATOM	3833	O	GLU	3162	110.501	18.146	115.793	1.00	42.60
ATOM	3834	N	LYS	3163	109.206	19.973	115.724	1.00	41.71
ATOM	3835	CA	LYS	3163	108.408	19.637	116.897	1.00	40.08
ATOM	3836	CB	LYS	3163	107.611	20.888	117.282	1.00	40.36
ATOM	3837	CG	LYS	3163	106.778	20.829	118.542	1.00	38.95
ATOM	3838	CD	LYS	3163	106.402	22.238	118.954	1.00	36.52
ATOM	3839	CE	LYS	3163	105.293	22.223	119.970	1.00	37.21
ATOM	3840	NZ	LYS	3163	104.029	21.737	119.350	1.00	36.99
ATOM	3841	C	LYS	3163	107.480	18.461	116.608	1.00	39.82
ATOM	3842	O	LYS	3163	106.334	18.656	116.212	1.00	39.27
ATOM	3843	N	LYS	3164	107.970	17.243	116.819	1.00	39.56
ATOM	3844	CA	LYS	3164	107.175	16.054	116.535	1.00	39.20
ATOM	3845	CB	LYS	3164	108.094	14.855	116.266	1.00	39.52
ATOM	3846	CG	LYS	3164	109.030	15.028	115.064	1.00	40.34
ATOM	3847	CD	LYS	3164	109.768	13.723	114.719	1.00	42.08
ATOM	3848	CE	LYS	3164	110.723	13.882	113.519	1.00	44.01
ATOM	3849	NZ	LYS	3164	111.437	12.625	113.081	1.00	42.94
ATOM	3850	C	LYS	3164	106.162	15.699	117.617	1.00	38.41
ATOM	3851	O	LYS	3164	105.194	14.986	117.349	1.00	39.65
ATOM	3852	N	LEU	3165	106.374	16.187	118.833	1.00	35.73
ATOM	3853	CA	LEU	3165	105.442	15.901	119.913	1.00	33.17
ATOM	3854	CB	LEU	3165	106.164	15.301	121.110	1.00	30.21
ATOM	3855	CG	LEU	3165	105.251	15.064	122.311	1.00	26.93
ATOM	3856	CD1	LEU	3165	104.238	13.986	121.980	1.00	26.38
ATOM	3857	CD2	LEU	3165	106.081	14.681	123.506	1.00	24.15
ATOM	3858	C	LEU	3165	104.716	17.162	120.357	1.00	33.21
ATOM	3859	O	LEU	3165	105.333	18.125	120.798	1.00	31.84
ATOM	3860	N	HIS	3166	103.395	17.143	120.242	1.00	33.42
ATOM	3861	CA	HIS	3166	102.572	18.279	120.635	1.00	33.38
ATOM	3862	CB	HIS	3166	101.581	18.665	119.528	1.00	34.28
ATOM	3863	CG	HIS	3166	102.181	19.418	118.383	1.00	35.41
ATOM	3864	CD2	HIS	3166	101.790	20.562	117.774	1.00	36.20

Table 6

ATOM	3865	ND1	HIS	3166	103.268	18.959	117.672	1.00	37.05
ATOM	3866	CE1	HIS	3166	103.518	19.785	116.671	1.00	36.57
ATOM	3867	NE2	HIS	3166	102.634	20.766	116.710	1.00	36.72
ATOM	3868	C	HIS	3166	101.745	17.918	121.855	1.00	32.56
ATOM	3869	O	HIS	3166	100.723	17.237	121.727	1.00	33.30
ATOM	3870	N	ALA	3167	102.172	18.372	123.027	1.00	30.59
ATOM	3871	CA	ALA	3167	101.430	18.112	124.253	1.00	29.28
ATOM	3872	CB	ALA	3167	102.377	17.761	125.374	1.00	29.41
ATOM	3873	C	ALA	3167	100.688	19.397	124.576	1.00	28.81
ATOM	3874	O	ALA	3167	101.289	20.473	124.624	1.00	28.26
ATOM	3875	N	VAL	3168	99.381	19.290	124.778	1.00	27.99
ATOM	3876	CA	VAL	3168	98.572	20.465	125.084	1.00	26.35
ATOM	3877	CB	VAL	3168	97.977	21.081	123.792	1.00	25.05
ATOM	3878	CG1	VAL	3168	99.034	21.179	122.739	1.00	24.87
ATOM	3879	CG2	VAL	3168	96.831	20.241	123.286	1.00	25.52
ATOM	3880	C	VAL	3168	97.420	20.113	126.023	1.00	25.97
ATOM	3881	O	VAL	3168	97.073	18.939	126.177	1.00	25.00
ATOM	3882	N	PRO	3169	96.837	21.125	126.693	1.00	25.48
ATOM	3883	CD	PRO	3169	97.374	22.466	126.974	1.00	24.61
ATOM	3884	CA	PRO	3169	95.720	20.819	127.594	1.00	24.17
ATOM	3885	CB	PRO	3169	95.670	22.028	128.532	1.00	24.08
ATOM	3886	CG	PRO	3169	97.053	22.605	128.449	1.00	24.31
ATOM	3887	C	PRO	3169	94.506	20.736	126.687	1.00	23.77
ATOM	3888	O	PRO	3169	94.515	21.295	125.584	1.00	23.57
ATOM	3889	N	ALA	3170	93.466	20.050	127.135	1.00	24.25
ATOM	3890	CA	ALA	3170	92.279	19.888	126.308	1.00	24.77
ATOM	3891	CB	ALA	3170	91.234	19.093	127.059	1.00	22.87
ATOM	3892	C	ALA	3170	91.687	21.206	125.817	1.00	25.55
ATOM	3893	O	ALA	3170	91.932	22.274	126.378	1.00	25.43
ATOM	3894	N	ALA	3171	90.915	21.110	124.743	1.00	27.40
ATOM	3895	CA	ALA	3171	90.244	22.256	124.153	1.00	29.23
ATOM	3896	CB	ALA	3171	89.640	23.129	125.239	1.00	28.46
ATOM	3897	C	ALA	3171	91.158	23.090	123.283	1.00	30.83
ATOM	3898	O	ALA	3171	90.697	23.708	122.313	1.00	33.12
ATOM	3899	N	LYS	3172	92.446	23.125	123.618	1.00	30.69
ATOM	3900	CA	LYS	3172	93.372	23.919	122.821	1.00	30.07
ATOM	3901	CB	LYS	3172	94.804	23.723	123.305	1.00	30.73
ATOM	3902	CG	LYS	3172	95.795	24.767	122.777	1.00	33.07
ATOM	3903	CD	LYS	3172	96.484	24.317	121.491	1.00	35.20
ATOM	3904	CE	LYS	3172	97.620	25.260	121.058	1.00	36.63
ATOM	3905	NZ	LYS	3172	97.159	26.611	120.587	1.00	38.22
ATOM	3906	C	LYS	3172	93.247	23.485	121.371	1.00	29.82
ATOM	3907	O	LYS	3172	93.014	22.311	121.090	1.00	30.27
ATOM	3908	N	THR	3173	93.363	24.432	120.450	1.00	28.89
ATOM	3909	CA	THR	3173	93.275	24.093	119.042	1.00	28.50
ATOM	3910	CB	THR	3173	92.761	25.281	118.242	1.00	29.15
ATOM	3911	OG1	THR	3173	91.377	25.480	118.570	1.00	30.98
ATOM	3912	CG2	THR	3173	92.929	25.047	116.744	1.00	26.93
ATOM	3913	C	THR	3173	94.645	23.650	118.559	1.00	27.27
ATOM	3914	O	THR	3173	95.664	24.264	118.877	1.00	27.15
ATOM	3915	N	VAL	3174	94.679	22.556	117.815	1.00	25.48
ATOM	3916	CA	VAL	3174	95.951	22.068	117.340	1.00	25.53
ATOM	3917	CB	VAL	3174	96.244	20.665	117.882	1.00	23.48
ATOM	3918	CG1	VAL	3174	97.396	20.050	117.136	1.00	23.44
ATOM	3919	CG2	VAL	3174	96.586	20.752	119.343	1.00	21.93
ATOM	3920	C	VAL	3174	95.999	22.069	115.835	1.00	27.17

Table 6

ATOM	3921	O	VAL	3174	95.004	21.783	115.176	1.00	28.23
ATOM	3922	N	LYS	3175	97.162	22.423	115.299	1.00	28.65
ATOM	3923	CA	LYS	3175	97.365	22.466	113.865	1.00	30.59
ATOM	3924	CB	LYS	3175	97.332	23.917	113.365	1.00	32.06
ATOM	3925	CG	LYS	3175	97.451	24.062	111.838	1.00	33.55
ATOM	3926	CD	LYS	3175	97.142	25.485	111.358	1.00	33.90
ATOM	3927	CE	LYS	3175	98.385	26.315	111.081	1.00	35.82
ATOM	3928	NZ	LYS	3175	99.220	26.546	112.288	1.00	38.45
ATOM	3929	C	LYS	3175	98.697	21.825	113.505	1.00	31.31
ATOM	3930	O	LYS	3175	99.745	22.214	114.029	1.00	31.44
ATOM	3931	N	PHE	3176	98.647	20.826	112.626	1.00	32.28
ATOM	3932	CA	PHE	3176	99.858	20.140	112.152	1.00	33.01
ATOM	3933	CB	PHE	3176	99.736	18.613	112.242	1.00	30.80
ATOM	3934	CG	PHE	3176	99.591	18.092	113.637	1.00	30.50
ATOM	3935	CD1	PHE	3176	100.476	18.480	114.638	1.00	30.97
ATOM	3936	CD2	PHE	3176	98.565	17.211	113.958	1.00	30.24
ATOM	3937	CE1	PHE	3176	100.337	18.001	115.944	1.00	29.88
ATOM	3938	CE2	PHE	3176	98.423	16.728	115.260	1.00	30.76
ATOM	3939	CZ	PHE	3176	99.312	17.127	116.254	1.00	29.37
ATOM	3940	C	PHE	3176	100.043	20.515	110.692	1.00	33.92
ATOM	3941	O	PHE	3176	99.088	20.452	109.911	1.00	33.90
ATOM	3942	N	LYS	3177	101.261	20.912	110.323	1.00	35.49
ATOM	3943	CA	LYS	3177	101.538	21.292	108.935	1.00	36.35
ATOM	3944	CB	LYS	3177	101.779	22.802	108.824	1.00	38.05
ATOM	3945	CG	LYS	3177	102.870	23.348	109.711	1.00	42.43
ATOM	3946	CD	LYS	3177	102.944	24.865	109.583	1.00	46.97
ATOM	3947	CE	LYS	3177	103.939	25.463	110.586	1.00	50.46
ATOM	3948	NZ	LYS	3177	104.026	26.962	110.524	1.00	52.89
ATOM	3949	C	LYS	3177	102.695	20.536	108.293	1.00	35.62
ATOM	3950	O	LYS	3177	103.642	20.119	108.961	1.00	35.64
ATOM	3951	N	CYS	3178	102.596	20.357	106.982	1.00	34.67
ATOM	3952	CA	CYS	3178	103.612	19.659	106.222	1.00	34.74
ATOM	3953	C	CYS	3178	103.955	20.424	104.958	1.00	35.58
ATOM	3954	O	CYS	3178	103.741	19.937	103.853	1.00	35.54
ATOM	3955	CB	CYS	3178	103.117	18.261	105.884	1.00	33.60
ATOM	3956	SG	CYS	3178	103.038	17.226	107.372	1.00	35.88
ATOM	3957	N	PRO	3179	104.498	21.644	105.109	1.00	36.84
ATOM	3958	CD	PRO	3179	104.979	22.257	106.356	1.00	38.05
ATOM	3959	CA	PRO	3179	104.871	22.475	103.970	1.00	37.36
ATOM	3960	CB	PRO	3179	105.558	23.672	104.625	1.00	37.13
ATOM	3961	CG	PRO	3179	106.122	23.106	105.856	1.00	37.15
ATOM	3962	C	PRO	3179	105.779	21.711	103.033	1.00	38.78
ATOM	3963	O	PRO	3179	106.888	21.316	103.404	1.00	39.64
ATOM	3964	N	SER	3180	105.283	21.504	101.818	1.00	39.40
ATOM	3965	CA	SER	3180	106.013	20.772	100.795	1.00	40.28
ATOM	3966	CB	SER	3180	105.687	19.287	100.892	1.00	40.13
ATOM	3967	OG	SER	3180	104.294	19.079	100.743	1.00	41.29
ATOM	3968	C	SER	3180	105.653	21.265	99.402	1.00	40.83
ATOM	3969	O	SER	3180	104.695	22.014	99.224	1.00	41.33
ATOM	3970	N	SER	3181	106.432	20.838	98.415	1.00	41.29
ATOM	3971	CA	SER	3181	106.196	21.216	97.032	1.00	41.67
ATOM	3972	CB	SER	3181	106.933	22.501	96.684	1.00	41.34
ATOM	3973	OG	SER	3181	106.679	22.841	95.336	1.00	42.45
ATOM	3974	C	SER	3181	106.667	20.114	96.108	1.00	42.58
ATOM	3975	O	SER	3181	107.169	19.078	96.557	1.00	42.52
ATOM	3976	N	GLY	3182	106.515	20.347	94.809	1.00	43.39

Table 6

ATOM	3977	CA	GLY	3182	106.926	19.358	93.832	1.00	44.36
ATOM	3978	C	GLY	3182	106.023	19.414	92.624	1.00	44.64
ATOM	3979	O	GLY	3182	104.828	19.686	92.744	1.00	45.60
ATOM	3980	N	THR	3183	106.584	19.145	91.455	1.00	44.26
ATOM	3981	CA	THR	3183	105.809	19.199	90.226	1.00	43.39
ATOM	3982	CB	THR	3183	106.416	20.225	89.257	1.00	44.07
ATOM	3983	OG1	THR	3183	107.601	19.679	88.664	1.00	43.89
ATOM	3984	CG2	THR	3183	106.784	21.510	90.009	1.00	44.02
ATOM	3985	C	THR	3183	105.739	17.848	89.528	1.00	41.94
ATOM	3986	O	THR	3183	106.749	17.182	89.337	1.00	41.73
ATOM	3987	N	PRO	3184	104.533	17.419	89.154	1.00	40.89
ATOM	3988	CD	PRO	3184	104.324	16.173	88.403	1.00	40.85
ATOM	3989	CA	PRO	3184	103.263	18.126	89.357	1.00	41.35
ATOM	3990	CB	PRO	3184	102.264	17.255	88.596	1.00	41.51
ATOM	3991	CG	PRO	3184	102.877	15.878	88.685	1.00	41.48
ATOM	3992	C	PRO	3184	102.899	18.273	90.842	1.00	41.37
ATOM	3993	O	PRO	3184	103.304	17.443	91.662	1.00	41.55
ATOM	3994	N	GLN	3185	102.136	19.317	91.178	1.00	40.22
ATOM	3995	CA	GLN	3185	101.741	19.555	92.565	1.00	38.60
ATOM	3996	CB	GLN	3185	100.632	20.603	92.686	1.00	38.52
ATOM	3997	CG	GLN	3185	101.130	22.019	92.551	1.00	38.62
ATOM	3998	CD	GLN	3185	102.396	22.266	93.350	1.00	39.26
ATOM	3999	OE1	GLN	3185	102.349	22.553	94.555	1.00	38.93
ATOM	4000	NE2	GLN	3185	103.544	22.143	92.682	1.00	37.47
ATOM	4001	C	GLN	3185	101.286	18.292	93.255	1.00	38.04
ATOM	4002	O	GLN	3185	100.398	17.582	92.773	1.00	38.76
ATOM	4003	N	PRO	3186	101.891	17.996	94.411	1.00	36.43
ATOM	4004	CD	PRO	3186	103.019	18.718	95.029	1.00	34.31
ATOM	4005	CA	PRO	3186	101.549	16.803	95.180	1.00	35.01
ATOM	4006	CB	PRO	3186	102.727	16.680	96.129	1.00	34.21
ATOM	4007	CG	PRO	3186	103.077	18.112	96.384	1.00	33.80
ATOM	4008	C	PRO	3186	100.225	16.928	95.914	1.00	34.50
ATOM	4009	O	PRO	3186	99.776	18.023	96.214	1.00	34.54
ATOM	4010	N	THR	3187	99.602	15.797	96.198	1.00	34.48
ATOM	4011	CA	THR	3187	98.344	15.791	96.914	1.00	33.96
ATOM	4012	CB	THR	3187	97.476	14.650	96.460	1.00	34.40
ATOM	4013	OG1	THR	3187	98.076	13.415	96.867	1.00	37.04
ATOM	4014	CG2	THR	3187	97.355	14.661	94.958	1.00	32.72
ATOM	4015	C	THR	3187	98.669	15.609	98.386	1.00	34.06
ATOM	4016	O	THR	3187	99.694	15.025	98.733	1.00	34.86
ATOM	4017	N	LEU	3188	97.784	16.094	99.247	1.00	33.45
ATOM	4018	CA	LEU	3188	97.989	16.025	100.689	1.00	32.42
ATOM	4019	CB	LEU	3188	98.058	17.459	101.222	1.00	32.45
ATOM	4020	CG	LEU	3188	98.424	17.833	102.657	1.00	32.62
ATOM	4021	CD1	LEU	3188	97.176	17.927	103.496	1.00	33.45
ATOM	4022	CD2	LEU	3188	99.412	16.837	103.214	1.00	32.98
ATOM	4023	C	LEU	3188	96.888	15.241	101.394	1.00	32.45
ATOM	4024	O	LEU	3188	95.703	15.500	101.184	1.00	33.51
ATOM	4025	N	ARG	3189	97.273	14.276	102.222	1.00	31.58
ATOM	4026	CA	ARG	3189	96.292	13.482	102.960	1.00	31.46
ATOM	4027	CB	ARG	3189	96.034	12.171	102.244	1.00	32.71
ATOM	4028	CG	ARG	3189	97.254	11.655	101.536	1.00	35.33
ATOM	4029	CD	ARG	3189	96.964	10.360	100.823	1.00	36.64
ATOM	4030	NE	ARG	3189	97.343	9.221	101.640	1.00	39.14
ATOM	4031	CZ	ARG	3189	97.196	7.967	101.251	1.00	40.05
ATOM	4032	NH1	ARG	3189	96.667	7.724	100.062	1.00	41.48

Table 6

ATOM	4033	NH2	ARG	3189	97.598	6.968	102.029	1.00	40.09
ATOM	4034	C	ARG	3189	96.806	13.215	104.357	1.00	30.48
ATOM	4035	O	ARG	3189	98.015	13.216	104.570	1.00	31.15
ATOM	4036	N	TRP	3190	95.900	12.993	105.309	1.00	28.92
ATOM	4037	CA	TRP	3190	96.312	12.744	106.689	1.00	27.43
ATOM	4038	CB	TRP	3190	95.807	13.861	107.601	1.00	25.06
ATOM	4039	CG	TRP	3190	96.413	15.186	107.297	1.00	24.52
ATOM	4040	CD2	TRP	3190	97.573	15.751	107.913	1.00	23.12
ATOM	4041	CE2	TRP	3190	97.811	17.001	107.290	1.00	22.92
ATOM	4042	CE3	TRP	3190	98.439	15.323	108.926	1.00	21.94
ATOM	4043	CD1	TRP	3190	96.000	16.091	106.349	1.00	25.01
ATOM	4044	NE1	TRP	3190	96.838	17.185	106.343	1.00	23.24
ATOM	4045	CZ2	TRP	3190	98.876	17.823	107.650	1.00	22.66
ATOM	4046	CZ3	TRP	3190	99.498	16.142	109.287	1.00	21.32
ATOM	4047	CH2	TRP	3190	99.708	17.379	108.650	1.00	22.50
ATOM	4048	C	TRP	3190	95.872	11.405	107.253	1.00	27.66
ATOM	4049	O	TRP	3190	94.887	10.824	106.810	1.00	27.65
ATOM	4050	N	LEU	3191	96.610	10.926	108.249	1.00	28.41
ATOM	4051	CA	LEU	3191	96.307	9.650	108.888	1.00	28.83
ATOM	4052	CB	LEU	3191	97.260	8.566	108.390	1.00	27.63
ATOM	4053	CG	LEU	3191	97.094	8.114	106.946	1.00	26.93
ATOM	4054	CD1	LEU	3191	98.157	7.108	106.615	1.00	24.92
ATOM	4055	CD2	LEU	3191	95.720	7.514	106.758	1.00	28.55
ATOM	4056	C	LEU	3191	96.399	9.696	110.400	1.00	30.38
ATOM	4057	O	LEU	3191	97.392	10.169	110.964	1.00	31.46
ATOM	4058	N	LYS	3192	95.366	9.191	111.059	1.00	30.65
ATOM	4059	CA	LYS	3192	95.365	9.153	112.511	1.00	31.26
ATOM	4060	CB	LYS	3192	93.968	9.452	113.048	1.00	30.21
ATOM	4061	CG	LYS	3192	93.849	9.483	114.559	1.00	28.59
ATOM	4062	CD	LYS	3192	92.490	10.045	114.934	1.00	28.49
ATOM	4063	CE	LYS	3192	92.225	10.011	116.429	1.00	27.72
ATOM	4064	NZ	LYS	3192	91.766	8.673	116.913	1.00	27.67
ATOM	4065	C	LYS	3192	95.770	7.738	112.841	1.00	32.77
ATOM	4066	O	LYS	3192	95.060	6.803	112.493	1.00	32.79
ATOM	4067	N	ASN	3193	96.922	7.586	113.489	1.00	34.65
ATOM	4068	CA	ASN	3193	97.442	6.271	113.865	1.00	35.77
ATOM	4069	CB	ASN	3193	96.586	5.615	114.951	1.00	34.84
ATOM	4070	CG	ASN	3193	96.362	6.510	116.142	1.00	36.02
ATOM	4071	OD1	ASN	3193	97.310	7.003	116.754	1.00	37.08
ATOM	4072	ND2	ASN	3193	95.097	6.726	116.485	1.00	35.16
ATOM	4073	C	ASN	3193	97.470	5.338	112.672	1.00	36.81
ATOM	4074	O	ASN	3193	97.022	4.201	112.770	1.00	37.65
ATOM	4075	N	GLY	3194	97.976	5.818	111.543	1.00	37.81
ATOM	4076	CA	GLY	3194	98.052	4.980	110.358	1.00	39.40
ATOM	4077	C	GLY	3194	96.770	4.835	109.562	1.00	39.98
ATOM	4078	O	GLY	3194	96.783	4.871	108.339	1.00	39.69
ATOM	4079	N	LYS	3195	95.653	4.667	110.251	1.00	42.10
ATOM	4080	CA	LYS	3195	94.371	4.514	109.575	1.00	43.61
ATOM	4081	CB	LYS	3195	93.322	4.012	110.576	1.00	45.37
ATOM	4082	CG	LYS	3195	93.783	2.809	111.409	1.00	47.51
ATOM	4083	CD	LYS	3195	94.260	1.672	110.507	1.00	50.03
ATOM	4084	CE	LYS	3195	94.801	0.473	111.294	1.00	51.90
ATOM	4085	NZ	LYS	3195	93.749	-0.297	112.031	1.00	52.89
ATOM	4086	C	LYS	3195	93.912	5.826	108.925	1.00	43.68
ATOM	4087	O	LYS	3195	94.371	6.912	109.291	1.00	44.03
ATOM	4088	N	GLU	3196	93.005	5.718	107.961	1.00	43.97

Table 6

ATOM	4089	CA	GLU	3196	92.503	6.891	107.265	1.00	45.11
ATOM	4090	CB	GLU	3196	91.764	6.472	106.001	1.00	47.79
ATOM	4091	CG	GLU	3196	92.191	7.266	104.776	1.00	51.56
ATOM	4092	CD	GLU	3196	91.085	7.376	103.743	1.00	54.33
ATOM	4093	OE1	GLU	3196	91.305	8.031	102.701	1.00	55.06
ATOM	4094	OE2	GLU	3196	89.993	6.811	103.984	1.00	54.21
ATOM	4095	C	GLU	3196	91.586	7.743	108.132	1.00	44.77
ATOM	4096	O	GLU	3196	90.632	7.246	108.718	1.00	43.69
ATOM	4097	N	PHE	3197	91.883	9.036	108.207	1.00	46.09
ATOM	4098	CA	PHE	3197	91.087	9.969	109.007	1.00	46.85
ATOM	4099	CB	PHE	3197	91.911	11.198	109.409	1.00	49.07
ATOM	4100	CG	PHE	3197	91.574	12.424	108.602	1.00	54.99
ATOM	4101	CD1	PHE	3197	90.857	13.473	109.171	1.00	57.46
ATOM	4102	CD2	PHE	3197	91.855	12.473	107.226	1.00	56.59
ATOM	4103	CE1	PHE	3197	90.414	14.557	108.386	1.00	59.23
ATOM	4104	CE2	PHE	3197	91.416	13.549	106.427	1.00	57.43
ATOM	4105	CZ	PHE	3197	90.692	14.590	107.009	1.00	58.59
ATOM	4106	C	PHE	3197	89.920	10.447	108.148	1.00	46.85
ATOM	4107	O	PHE	3197	89.960	10.359	106.923	1.00	47.12
ATOM	4108	N	LYS	3198	88.889	10.973	108.793	1.00	46.00
ATOM	4109	CA	LYS	3198	87.732	11.508	108.080	1.00	45.84
ATOM	4110	CB	LYS	3198	86.786	10.374	107.661	1.00	44.01
ATOM	4111	C	LYS	3198	87.025	12.527	108.993	1.00	45.86
ATOM	4112	O	LYS	3198	86.769	12.252	110.164	1.00	46.51
ATOM	4113	N	PRO	3199	86.697	13.716	108.461	1.00	45.11
ATOM	4114	CD	PRO	3199	86.516	13.932	107.014	1.00	44.01
ATOM	4115	CA	PRO	3199	86.026	14.783	109.214	1.00	44.59
ATOM	4116	CB	PRO	3199	85.430	15.657	108.110	1.00	43.96
ATOM	4117	CG	PRO	3199	85.235	14.702	106.979	1.00	42.96
ATOM	4118	C	PRO	3199	84.980	14.341	110.237	1.00	44.16
ATOM	4119	O	PRO	3199	84.950	14.847	111.347	1.00	44.80
ATOM	4120	N	ASP	3200	84.116	13.404	109.870	1.00	43.90
ATOM	4121	CA	ASP	3200	83.100	12.933	110.805	1.00	44.02
ATOM	4122	CB	ASP	3200	82.073	12.043	110.097	1.00	45.82
ATOM	4123	CG	ASP	3200	81.157	12.813	109.189	1.00	47.10
ATOM	4124	OD1	ASP	3200	81.586	13.149	108.064	1.00	48.67
ATOM	4125	OD2	ASP	3200	80.010	13.084	109.606	1.00	46.58
ATOM	4126	C	ASP	3200	83.685	12.109	111.950	1.00	43.57
ATOM	4127	O	ASP	3200	82.956	11.695	112.848	1.00	43.75
ATOM	4128	N	HIS	3201	84.988	11.856	111.928	1.00	42.90
ATOM	4129	CA	HIS	3201	85.577	11.024	112.966	1.00	42.12
ATOM	4130	CB	HIS	3201	86.819	10.322	112.412	1.00	45.05
ATOM	4131	CG	HIS	3201	86.513	9.409	111.258	1.00	48.69
ATOM	4132	CD2	HIS	3201	87.276	8.503	110.601	1.00	49.14
ATOM	4133	ND1	HIS	3201	85.280	9.393	110.633	1.00	49.54
ATOM	4134	CE1	HIS	3201	85.298	8.519	109.643	1.00	49.00
ATOM	4135	NE2	HIS	3201	86.497	7.966	109.600	1.00	49.34
ATOM	4136	C	HIS	3201	85.839	11.693	114.306	1.00	40.12
ATOM	4137	O	HIS	3201	86.315	11.051	115.234	1.00	39.87
ATOM	4138	N	ARG	3202	85.511	12.975	114.419	1.00	38.19
ATOM	4139	CA	ARG	3202	85.666	13.680	115.690	1.00	37.19
ATOM	4140	CB	ARG	3202	87.094	14.212	115.858	1.00	33.66
ATOM	4141	CG	ARG	3202	87.423	15.447	115.033	1.00	30.85
ATOM	4142	CD	ARG	3202	88.874	15.897	115.215	1.00	28.38
ATOM	4143	NE	ARG	3202	89.213	16.267	116.595	1.00	26.89
ATOM	4144	CZ	ARG	3202	89.081	17.486	117.116	1.00	24.63

Table 6

ATOM	4145	NH1	ARG	3202	88.614	18.490	116.378	1.00	22.77
ATOM	4146	NH2	ARG	3202	89.426	17.701	118.379	1.00	22.19
ATOM	4147	C	ARG	3202	84.665	14.826	115.713	1.00	38.70
ATOM	4148	O	ARG	3202	84.313	15.352	114.656	1.00	39.97
ATOM	4149	N	ILE	3203	84.187	15.197	116.899	1.00	38.96
ATOM	4150	CA	ILE	3203	83.228	16.302	117.020	1.00	40.54
ATOM	4151	CB	ILE	3203	82.888	16.619	118.497	1.00	40.79
ATOM	4152	CG2	ILE	3203	81.583	15.975	118.896	1.00	41.16
ATOM	4153	CG1	ILE	3203	84.046	16.187	119.394	1.00	41.69
ATOM	4154	CD1	ILE	3203	83.854	16.577	120.829	1.00	42.35
ATOM	4155	C	ILE	3203	83.850	17.560	116.437	1.00	41.00
ATOM	4156	O	ILE	3203	84.987	17.889	116.769	1.00	40.32
ATOM	4157	N	GLY	3204	83.106	18.265	115.588	1.00	42.04
ATOM	4158	CA	GLY	3204	83.633	19.475	114.983	1.00	42.18
ATOM	4159	C	GLY	3204	84.576	19.121	113.856	1.00	42.43
ATOM	4160	O	GLY	3204	85.010	19.989	113.098	1.00	43.78
ATOM	4161	N	GLY	3205	84.899	17.837	113.759	1.00	41.56
ATOM	4162	CA	GLY	3205	85.784	17.365	112.714	1.00	42.05
ATOM	4163	C	GLY	3205	87.106	18.088	112.573	1.00	41.88
ATOM	4164	O	GLY	3205	87.525	18.832	113.458	1.00	41.59
ATOM	4165	N	TYR	3206	87.752	17.852	111.436	1.00	41.98
ATOM	4166	CA	TYR	3206	89.041	18.435	111.113	1.00	43.16
ATOM	4167	CB	TYR	3206	90.030	17.357	110.639	1.00	45.88
ATOM	4168	CG	TYR	3206	90.059	16.016	111.348	1.00	49.67
ATOM	4169	CD1	TYR	3206	88.973	15.145	111.312	1.00	50.70
ATOM	4170	CE1	TYR	3206	89.054	13.868	111.912	1.00	52.54
ATOM	4171	CD2	TYR	3206	91.222	15.586	111.998	1.00	52.55
ATOM	4172	CE2	TYR	3206	91.313	14.326	112.593	1.00	52.68
ATOM	4173	CZ	TYR	3206	90.233	13.473	112.549	1.00	52.36
ATOM	4174	OH	TYR	3206	90.349	12.237	113.142	1.00	51.75
ATOM	4175	C	TYR	3206	88.875	19.378	109.924	1.00	43.10
ATOM	4176	O	TYR	3206	87.904	19.281	109.176	1.00	42.27
ATOM	4177	N	LYS	3207	89.863	20.247	109.726	1.00	42.87
ATOM	4178	CA	LYS	3207	89.871	21.175	108.608	1.00	43.44
ATOM	4179	CB	LYS	3207	89.669	22.612	109.091	1.00	44.45
ATOM	4180	CG	LYS	3207	88.451	22.815	109.968	1.00	46.86
ATOM	4181	CD	LYS	3207	87.585	23.959	109.464	1.00	48.99
ATOM	4182	CE	LYS	3207	88.323	25.281	109.476	1.00	50.26
ATOM	4183	NZ	LYS	3207	87.603	26.258	108.623	1.00	53.62
ATOM	4184	C	LYS	3207	91.241	21.062	107.956	1.00	43.63
ATOM	4185	O	LYS	3207	92.262	21.210	108.637	1.00	43.12
ATOM	4186	N	VAL	3208	91.274	20.800	106.651	1.00	43.43
ATOM	4187	CA	VAL	3208	92.550	20.696	105.959	1.00	43.96
ATOM	4188	CB	VAL	3208	92.649	19.384	105.160	1.00	44.46
ATOM	4189	CG1	VAL	3208	94.059	19.208	104.641	1.00	44.59
ATOM	4190	CG2	VAL	3208	92.273	18.204	106.038	1.00	44.71
ATOM	4191	C	VAL	3208	92.764	21.880	105.021	1.00	43.87
ATOM	4192	O	VAL	3208	91.978	22.107	104.108	1.00	43.48
ATOM	4193	N	ARG	3209	93.832	22.632	105.269	1.00	43.97
ATOM	4194	CA	ARG	3209	94.175	23.800	104.471	1.00	44.14
ATOM	4195	CB	ARG	3209	94.563	24.969	105.385	1.00	43.74
ATOM	4196	C	ARG	3209	95.335	23.471	103.542	1.00	44.62
ATOM	4197	O	ARG	3209	96.492	23.792	103.841	1.00	45.16
ATOM	4198	N	TYR	3210	95.018	22.823	102.422	1.00	42.65
ATOM	4199	CA	TYR	3210	96.024	22.457	101.445	1.00	40.69
ATOM	4200	CB	TYR	3210	95.337	21.964	100.180	1.00	39.58

Table 6

ATOM	4201	CG	TYR	3210	94.363	20.838	100.449	1.00	39.88
ATOM	4202	CD1	TYR	3210	93.015	21.095	100.655	1.00	39.52
ATOM	4203	CE1	TYR	3210	92.121	20.067	100.947	1.00	39.34
ATOM	4204	CD2	TYR	3210	94.801	19.511	100.541	1.00	39.83
ATOM	4205	CE2	TYR	3210	93.914	18.475	100.837	1.00	40.07
ATOM	4206	CZ	TYR	3210	92.571	18.761	101.041	1.00	39.67
ATOM	4207	OH	TYR	3210	91.681	17.750	101.361	1.00	38.31
ATOM	4208	C	TYR	3210	96.868	23.679	101.154	1.00	39.91
ATOM	4209	O	TYR	3210	98.069	23.585	100.928	1.00	40.83
ATOM	4210	N	ALA	3211	96.225	24.835	101.184	1.00	38.73
ATOM	4211	CA	ALA	3211	96.901	26.092	100.926	1.00	38.16
ATOM	4212	CB	ALA	3211	95.958	27.240	101.235	1.00	38.71
ATOM	4213	C	ALA	3211	98.174	26.220	101.762	1.00	37.62
ATOM	4214	O	ALA	3211	99.137	26.870	101.363	1.00	37.03
ATOM	4215	N	THR	3212	98.172	25.580	102.921	1.00	36.93
ATOM	4216	CA	THR	3212	99.300	25.634	103.836	1.00	36.17
ATOM	4217	CB	THR	3212	98.900	26.426	105.078	1.00	35.91
ATOM	4218	OG1	THR	3212	97.654	25.919	105.570	1.00	36.61
ATOM	4219	CG2	THR	3212	98.711	27.889	104.734	1.00	35.63
ATOM	4220	C	THR	3212	99.749	24.238	104.260	1.00	35.52
ATOM	4221	O	THR	3212	100.523	24.085	105.211	1.00	33.54
ATOM	4222	N	TRP	3213	99.242	23.231	103.549	1.00	34.65
ATOM	4223	CA	TRP	3213	99.565	21.837	103.819	1.00	34.22
ATOM	4224	CB	TRP	3213	101.012	21.547	103.413	1.00	34.03
ATOM	4225	CG	TRP	3213	101.313	21.954	101.999	1.00	33.35
ATOM	4226	CD2	TRP	3213	101.134	21.155	100.824	1.00	33.01
ATOM	4227	CE2	TRP	3213	101.442	21.969	99.716	1.00	32.31
ATOM	4228	CE3	TRP	3213	100.740	19.830	100.601	1.00	33.41
ATOM	4229	CD1	TRP	3213	101.719	23.185	101.564	1.00	31.79
ATOM	4230	NE1	TRP	3213	101.795	23.203	100.196	1.00	31.39
ATOM	4231	CZ2	TRP	3213	101.365	21.500	98.401	1.00	32.41
ATOM	4232	CZ3	TRP	3213	100.664	19.366	99.298	1.00	32.89
ATOM	4233	CH2	TRP	3213	100.976	20.199	98.214	1.00	32.99
ATOM	4234	C	TRP	3213	99.371	21.523	105.287	1.00	33.48
ATOM	4235	O	TRP	3213	100.189	20.846	105.896	1.00	33.88
ATOM	4236	N	SER	3214	98.284	22.016	105.860	1.00	32.56
ATOM	4237	CA	SER	3214	98.038	21.768	107.265	1.00	30.87
ATOM	4238	CB	SER	3214	98.190	23.064	108.065	1.00	30.97
ATOM	4239	OG	SER	3214	97.317	24.070	107.580	1.00	32.89
ATOM	4240	C	SER	3214	96.687	21.137	107.550	1.00	29.28
ATOM	4241	O	SER	3214	95.795	21.093	106.694	1.00	28.57
ATOM	4242	N	ILE	3215	96.569	20.616	108.763	1.00	26.55
ATOM	4243	CA	ILE	3215	95.341	20.007	109.216	1.00	24.71
ATOM	4244	CB	ILE	3215	95.506	18.501	109.433	1.00	22.40
ATOM	4245	CG2	ILE	3215	96.431	18.229	110.581	1.00	22.23
ATOM	4246	CG1	ILE	3215	94.152	17.890	109.736	1.00	22.18
ATOM	4247	CD1	ILE	3215	94.208	16.425	109.972	1.00	23.12
ATOM	4248	C	ILE	3215	95.044	20.712	110.532	1.00	24.92
ATOM	4249	O	ILE	3215	95.966	21.045	111.288	1.00	25.19
ATOM	4250	N	ILE	3216	93.773	20.974	110.810	1.00	24.01
ATOM	4251	CA	ILE	3216	93.463	21.666	112.048	1.00	22.52
ATOM	4252	CB	ILE	3216	93.060	23.111	111.775	1.00	20.84
ATOM	4253	CG2	ILE	3216	92.815	23.824	113.079	1.00	19.15
ATOM	4254	CG1	ILE	3216	94.178	23.797	110.988	1.00	19.92
ATOM	4255	CD1	ILE	3216	93.906	25.215	110.623	1.00	19.51
ATOM	4256	C	ILE	3216	92.399	20.999	112.897	1.00	22.87

Table 6

ATOM	4257	O	ILE	3216	91.357	20.555	112.401	1.00	22.78
ATOM	4258	N	MET	3217	92.690	20.914	114.189	1.00	22.18
ATOM	4259	CA	MET	3217	91.779	20.321	115.139	1.00	21.68
ATOM	4260	CB	MET	3217	92.347	19.053	115.763	1.00	19.39
ATOM	4261	CG	MET	3217	92.456	17.917	114.775	1.00	18.56
ATOM	4262	SD	MET	3217	92.952	16.333	115.467	1.00	17.16
ATOM	4263	CE	MET	3217	94.691	16.580	115.746	1.00	16.06
ATOM	4264	C	MET	3217	91.493	21.327	116.216	1.00	23.31
ATOM	4265	O	MET	3217	92.362	21.729	116.995	1.00	22.47
ATOM	4266	N	ASP	3218	90.230	21.714	116.217	1.00	24.72
ATOM	4267	CA	ASP	3218	89.633	22.670	117.114	1.00	25.55
ATOM	4268	CB	ASP	3218	88.403	23.180	116.368	1.00	26.32
ATOM	4269	CG	ASP	3218	87.752	24.337	117.024	1.00	27.13
ATOM	4270	OD1	ASP	3218	86.517	24.401	116.912	1.00	28.80
ATOM	4271	OD2	ASP	3218	88.452	25.179	117.622	1.00	28.71
ATOM	4272	C	ASP	3218	89.251	21.923	118.407	1.00	25.13
ATOM	4273	O	ASP	3218	88.839	20.764	118.349	1.00	24.83
ATOM	4274	N	SER	3219	89.384	22.591	119.553	1.00	24.85
ATOM	4275	CA	SER	3219	89.059	22.012	120.858	1.00	25.80
ATOM	4276	CB	SER	3219	87.601	22.321	121.227	1.00	26.52
ATOM	4277	OG	SER	3219	87.342	22.022	122.598	1.00	27.15
ATOM	4278	C	SER	3219	89.340	20.498	120.943	1.00	25.85
ATOM	4279	O	SER	3219	88.430	19.659	120.911	1.00	25.51
ATOM	4280	N	VAL	3220	90.623	20.169	121.062	1.00	24.81
ATOM	4281	CA	VAL	3220	91.075	18.787	121.136	1.00	23.17
ATOM	4282	CB	VAL	3220	92.610	18.705	120.943	1.00	21.31
ATOM	4283	CG1	VAL	3220	93.004	19.434	119.676	1.00	18.39
ATOM	4284	CG2	VAL	3220	93.330	19.297	122.137	1.00	21.38
ATOM	4285	C	VAL	3220	90.696	18.149	122.457	1.00	23.53
ATOM	4286	O	VAL	3220	90.519	18.835	123.452	1.00	23.23
ATOM	4287	N	VAL	3221	90.597	16.827	122.458	1.00	24.67
ATOM	4288	CA	VAL	3221	90.203	16.079	123.644	1.00	25.29
ATOM	4289	CB	VAL	3221	88.685	15.861	123.588	1.00	25.96
ATOM	4290	CG1	VAL	3221	87.963	17.203	123.771	1.00	24.07
ATOM	4291	CG2	VAL	3221	88.304	15.265	122.217	1.00	22.59
ATOM	4292	C	VAL	3221	90.939	14.737	123.694	1.00	26.24
ATOM	4293	O	VAL	3221	91.462	14.268	122.687	1.00	27.55
ATOM	4294	N	PRO	3222	90.977	14.092	124.861	1.00	25.89
ATOM	4295	CD	PRO	3222	90.340	14.464	126.133	1.00	25.13
ATOM	4296	CA	PRO	3222	91.676	12.805	124.972	1.00	25.81
ATOM	4297	CB	PRO	3222	91.119	12.239	126.270	1.00	25.90
ATOM	4298	CG	PRO	3222	91.008	13.496	127.112	1.00	26.13
ATOM	4299	C	PRO	3222	91.513	11.872	123.774	1.00	25.76
ATOM	4300	O	PRO	3222	92.471	11.243	123.343	1.00	25.53
ATOM	4301	N	SER	3223	90.305	11.806	123.230	1.00	26.32
ATOM	4302	CA	SER	3223	90.028	10.950	122.085	1.00	27.65
ATOM	4303	CB	SER	3223	88.599	11.185	121.592	1.00	29.55
ATOM	4304	OG	SER	3223	88.603	11.913	120.360	1.00	34.94
ATOM	4305	C	SER	3223	90.983	11.226	120.923	1.00	27.77
ATOM	4306	O	SER	3223	91.247	10.348	120.099	1.00	28.27
ATOM	4307	N	ASP	3224	91.484	12.454	120.849	1.00	27.50
ATOM	4308	CA	ASP	3224	92.381	12.851	119.769	1.00	26.47
ATOM	4309	CB	ASP	3224	92.377	14.368	119.588	1.00	26.22
ATOM	4310	CG	ASP	3224	91.016	14.911	119.194	1.00	26.25
ATOM	4311	OD1	ASP	3224	90.558	14.634	118.071	1.00	26.37
ATOM	4312	OD2	ASP	3224	90.407	15.620	120.018	1.00	26.47

Table 6

ATOM	4313	C	ASP	3224	93.813	12.401	119.964	1.00	26.68
ATOM	4314	O	ASP	3224	94.589	12.406	119.016	1.00	27.42
ATOM	4315	N	LYS	3225	94.182	12.033	121.186	1.00	27.01
ATOM	4316	CA	LYS	3225	95.539	11.566	121.436	1.00	26.78
ATOM	4317	CB	LYS	3225	95.645	10.893	122.798	1.00	27.79
ATOM	4318	CG	LYS	3225	95.778	11.806	123.993	1.00	28.57
ATOM	4319	CD	LYS	3225	96.060	10.984	125.240	1.00	28.90
ATOM	4320	CE	LYS	3225	96.143	11.863	126.464	1.00	31.24
ATOM	4321	NZ	LYS	3225	96.642	11.133	127.674	1.00	32.68
ATOM	4322	C	LYS	3225	95.892	10.536	120.378	1.00	27.67
ATOM	4323	O	LYS	3225	95.082	9.663	120.063	1.00	28.05
ATOM	4324	N	GLY	3226	97.093	10.632	119.828	1.00	28.00
ATOM	4325	CA	GLY	3226	97.505	9.671	118.821	1.00	29.59
ATOM	4326	C	GLY	3226	98.593	10.173	117.889	1.00	30.53
ATOM	4327	O	GLY	3226	99.216	11.211	118.132	1.00	32.30
ATOM	4328	N	ASN	3227	98.845	9.423	116.824	1.00	29.28
ATOM	4329	CA	ASN	3227	99.840	9.827	115.853	1.00	28.54
ATOM	4330	CB	ASN	3227	100.713	8.647	115.436	1.00	29.62
ATOM	4331	CG	ASN	3227	101.767	8.299	116.459	1.00	30.02
ATOM	4332	OD1	ASN	3227	102.592	9.133	116.832	1.00	30.16
ATOM	4333	ND2	ASN	3227	101.757	7.050	116.906	1.00	28.97
ATOM	4334	C	ASN	3227	99.088	10.336	114.641	1.00	28.93
ATOM	4335	O	ASN	3227	98.057	9.779	114.251	1.00	29.62
ATOM	4336	N	TYR	3228	99.597	11.403	114.048	1.00	28.13
ATOM	4337	CA	TYR	3228	98.977	11.958	112.858	1.00	27.28
ATOM	4338	CB	TYR	3228	98.413	13.353	113.136	1.00	24.03
ATOM	4339	CG	TYR	3228	97.233	13.292	114.060	1.00	21.44
ATOM	4340	CD1	TYR	3228	97.404	13.225	115.437	1.00	20.30
ATOM	4341	CE1	TYR	3228	96.325	13.042	116.284	1.00	19.53
ATOM	4342	CD2	TYR	3228	95.947	13.184	113.556	1.00	19.11
ATOM	4343	CE2	TYR	3228	94.867	12.999	114.389	1.00	18.07
ATOM	4344	CZ	TYR	3228	95.057	12.927	115.750	1.00	18.86
ATOM	4345	OH	TYR	3228	93.972	12.708	116.575	1.00	20.59
ATOM	4346	C	TYR	3228	100.026	12.007	111.775	1.00	28.52
ATOM	4347	O	TYR	3228	101.091	12.584	111.964	1.00	29.79
ATOM	4348	N	THR	3229	99.734	11.382	110.642	1.00	29.19
ATOM	4349	CA	THR	3229	100.679	11.366	109.540	1.00	29.34
ATOM	4350	CB	THR	3229	101.048	9.949	109.133	1.00	28.43
ATOM	4351	OG1	THR	3229	101.531	9.232	110.270	1.00	28.14
ATOM	4352	CG2	THR	3229	102.119	9.988	108.069	1.00	27.79
ATOM	4353	C	THR	3229	100.174	12.056	108.288	1.00	31.13
ATOM	4354	O	THR	3229	99.069	11.778	107.808	1.00	30.37
ATOM	4355	N	CYS	3230	100.993	12.956	107.755	1.00	32.69
ATOM	4356	CA	CYS	3230	100.633	13.645	106.531	1.00	33.78
ATOM	4357	C	CYS	3230	101.391	12.932	105.433	1.00	34.55
ATOM	4358	O	CYS	3230	102.527	12.503	105.629	1.00	34.62
ATOM	4359	CB	CYS	3230	101.049	15.105	106.567	1.00	34.39
ATOM	4360	SG	CYS	3230	102.843	15.340	106.660	1.00	36.87
ATOM	4361	N	ILE	3231	100.751	12.806	104.282	1.00	35.44
ATOM	4362	CA	ILE	3231	101.336	12.126	103.144	1.00	36.41
ATOM	4363	CB	ILE	3231	100.585	10.814	102.870	1.00	35.62
ATOM	4364	CG2	ILE	3231	101.145	10.131	101.638	1.00	35.26
ATOM	4365	CG1	ILE	3231	100.687	9.904	104.086	1.00	34.89
ATOM	4366	CD1	ILE	3231	99.936	8.621	103.927	1.00	35.47
ATOM	4367	C	ILE	3231	101.246	12.997	101.906	1.00	38.07
ATOM	4368	O	ILE	3231	100.176	13.125	101.303	1.00	39.42

Table 6

ATOM	4369	N	VAL	3232	102.364	13.600	101.526	1.00	38.92
ATOM	4370	CA	VAL	3232	102.391	14.441	100.342	1.00	40.39
ATOM	4371	CB	VAL	3232	103.264	15.669	100.578	1.00	39.85
ATOM	4372	CG1	VAL	3232	103.271	16.546	99.351	1.00	39.62
ATOM	4373	CG2	VAL	3232	102.736	16.437	101.775	1.00	39.18
ATOM	4374	C	VAL	3232	102.957	13.582	99.221	1.00	42.03
ATOM	4375	O	VAL	3232	104.005	12.959	99.384	1.00	42.84
ATOM	4376	N	GLU	3233	102.267	13.548	98.084	1.00	43.41
ATOM	4377	CA	GLU	3233	102.698	12.700	96.977	1.00	44.19
ATOM	4378	CB	GLU	3233	102.249	11.268	97.253	1.00	44.16
ATOM	4379	CG	GLU	3233	100.801	11.210	97.745	1.00	46.42
ATOM	4380	CD	GLU	3233	100.302	9.798	98.011	1.00	47.74
ATOM	4381	OE1	GLU	3233	99.245	9.660	98.677	1.00	46.48
ATOM	4382	OE2	GLU	3233	100.960	8.833	97.551	1.00	48.12
ATOM	4383	C	GLU	3233	102.201	13.080	95.589	1.00	44.58
ATOM	4384	O	GLU	3233	101.077	13.537	95.418	1.00	43.85
ATOM	4385	N	ASN	3234	103.066	12.876	94.602	1.00	45.20
ATOM	4386	CA	ASN	3234	102.734	13.111	93.210	1.00	45.75
ATOM	4387	CB	ASN	3234	103.476	14.334	92.615	1.00	45.13
ATOM	4388	CG	ASN	3234	104.982	14.134	92.491	1.00	44.18
ATOM	4389	OD1	ASN	3234	105.467	13.020	92.346	1.00	43.62
ATOM	4390	ND2	ASN	3234	105.723	15.233	92.520	1.00	43.12
ATOM	4391	C	ASN	3234	103.152	11.825	92.514	1.00	46.39
ATOM	4392	O	ASN	3234	103.416	10.828	93.173	1.00	46.09
ATOM	4393	N	GLU	3235	103.235	11.852	91.194	1.00	47.69
ATOM	4394	CA	GLU	3235	103.592	10.669	90.425	1.00	48.68
ATOM	4395	CB	GLU	3235	103.195	10.907	88.975	1.00	50.55
ATOM	4396	CG	GLU	3235	103.360	9.735	88.053	1.00	53.73
ATOM	4397	CD	GLU	3235	102.929	10.088	86.647	1.00	56.51
ATOM	4398	OE1	GLU	3235	103.437	11.103	86.115	1.00	56.67
ATOM	4399	OE2	GLU	3235	102.083	9.360	86.078	1.00	59.10
ATOM	4400	C	GLU	3235	105.059	10.242	90.499	1.00	48.11
ATOM	4401	O	GLU	3235	105.398	9.114	90.157	1.00	48.22
ATOM	4402	N	TYR	3236	105.925	11.127	90.972	1.00	47.64
ATOM	4403	CA	TYR	3236	107.352	10.835	91.034	1.00	46.82
ATOM	4404	CB	TYR	3236	108.112	11.980	90.359	1.00	47.99
ATOM	4405	CG	TYR	3236	107.695	12.162	88.924	1.00	49.09
ATOM	4406	CD1	TYR	3236	106.387	12.517	88.596	1.00	50.10
ATOM	4407	CE1	TYR	3236	105.964	12.578	87.272	1.00	50.72
ATOM	4408	CD2	TYR	3236	108.575	11.886	87.889	1.00	49.80
ATOM	4409	CE2	TYR	3236	108.163	11.946	86.563	1.00	50.77
ATOM	4410	CZ	TYR	3236	106.859	12.289	86.264	1.00	50.58
ATOM	4411	OH	TYR	3236	106.454	12.313	84.957	1.00	50.48
ATOM	4412	C	TYR	3236	107.898	10.610	92.429	1.00	45.57
ATOM	4413	O	TYR	3236	109.104	10.652	92.645	1.00	45.09
ATOM	4414	N	GLY	3237	107.011	10.372	93.381	1.00	44.21
ATOM	4415	CA	GLY	3237	107.468	10.159	94.736	1.00	41.97
ATOM	4416	C	GLY	3237	106.448	10.529	95.786	1.00	39.88
ATOM	4417	O	GLY	3237	105.378	11.048	95.482	1.00	40.72
ATOM	4418	N	SER	3238	106.795	10.249	97.033	1.00	37.18
ATOM	4419	CA	SER	3238	105.938	10.530	98.161	1.00	34.84
ATOM	4420	CB	SER	3238	105.051	9.329	98.446	1.00	33.70
ATOM	4421	OG	SER	3238	105.132	8.981	99.816	1.00	33.08
ATOM	4422	C	SER	3238	106.806	10.788	99.374	1.00	34.34
ATOM	4423	O	SER	3238	107.893	10.241	99.484	1.00	35.66
ATOM	4424	N	ILE	3239	106.347	11.653	100.266	1.00	33.12

Table 6

ATOM	4425	CA	ILE	3239	107.062	11.907	101.511	1.00	31.89
ATOM	4426	CB	ILE	3239	107.867	13.215	101.533	1.00	32.23
ATOM	4427	CG2	ILE	3239	109.033	13.115	100.564	1.00	33.32
ATOM	4428	CG1	ILE	3239	106.967	14.400	101.227	1.00	32.64
ATOM	4429	CD1	ILE	3239	107.746	15.668	100.981	1.00	33.49
ATOM	4430	C	ILE	3239	106.011	11.957	102.592	1.00	31.51
ATOM	4431	O	ILE	3239	104.804	12.047	102.308	1.00	32.20
ATOM	4432	N	ASN	3240	106.458	11.877	103.835	1.00	29.70
ATOM	4433	CA	ASN	3240	105.513	11.876	104.938	1.00	28.30
ATOM	4434	CB	ASN	3240	104.794	10.520	105.012	1.00	26.31
ATOM	4435	CG	ASN	3240	105.655	9.440	105.630	1.00	25.18
ATOM	4436	OD1	ASN	3240	105.819	9.384	106.844	1.00	25.49
ATOM	4437	ND2	ASN	3240	106.221	8.584	104.794	1.00	24.73
ATOM	4438	C	ASN	3240	106.195	12.164	106.258	1.00	27.90
ATOM	4439	O	ASN	3240	107.323	11.739	106.502	1.00	27.83
ATOM	4440	N	HIS	3241	105.487	12.895	107.104	1.00	27.06
ATOM	4441	CA	HIS	3241	105.978	13.261	108.414	1.00	26.58
ATOM	4442	CB	HIS	3241	106.143	14.775	108.498	1.00	26.17
ATOM	4443	CG	HIS	3241	106.970	15.226	109.656	1.00	25.26
ATOM	4444	CD2	HIS	3241	106.617	15.707	110.870	1.00	25.19
ATOM	4445	ND1	HIS	3241	108.345	15.183	109.646	1.00	24.49
ATOM	4446	CE1	HIS	3241	108.805	15.621	110.802	1.00	25.12
ATOM	4447	NE2	HIS	3241	107.777	15.946	111.563	1.00	25.55
ATOM	4448	C	HIS	3241	104.900	12.811	109.387	1.00	26.77
ATOM	4449	O	HIS	3241	103.739	12.667	109.007	1.00	27.47
ATOM	4450	N	THR	3242	105.275	12.597	110.638	1.00	26.59
ATOM	4451	CA	THR	3242	104.317	12.156	111.631	1.00	26.19
ATOM	4452	CB	THR	3242	104.465	10.661	111.915	1.00	26.59
ATOM	4453	OG1	THR	3242	103.849	9.915	110.858	1.00	27.70
ATOM	4454	CG2	THR	3242	103.828	10.297	113.245	1.00	26.65
ATOM	4455	C	THR	3242	104.471	12.894	112.934	1.00	26.79
ATOM	4456	O	THR	3242	105.542	12.906	113.518	1.00	26.77
ATOM	4457	N	TYR	3243	103.382	13.502	113.390	1.00	28.48
ATOM	4458	CA	TYR	3243	103.370	14.243	114.645	1.00	29.17
ATOM	4459	CB	TYR	3243	102.625	15.570	114.486	1.00	29.29
ATOM	4460	CG	TYR	3243	103.268	16.528	113.519	1.00	28.26
ATOM	4461	CD1	TYR	3243	102.774	16.678	112.241	1.00	27.48
ATOM	4462	CE1	TYR	3243	103.364	17.556	111.345	1.00	29.98
ATOM	4463	CD2	TYR	3243	104.379	17.282	113.890	1.00	28.49
ATOM	4464	CE2	TYR	3243	104.981	18.162	113.003	1.00	28.64
ATOM	4465	CZ	TYR	3243	104.470	18.299	111.728	1.00	29.37
ATOM	4466	OH	TYR	3243	105.049	19.176	110.834	1.00	29.75
ATOM	4467	C	TYR	3243	102.673	13.424	115.709	1.00	29.58
ATOM	4468	O	TYR	3243	101.807	12.604	115.410	1.00	30.21
ATOM	4469	N	GLN	3244	103.048	13.648	116.956	1.00	30.31
ATOM	4470	CA	GLN	3244	102.431	12.918	118.035	1.00	30.89
ATOM	4471	CB	GLN	3244	103.487	12.215	118.875	1.00	32.36
ATOM	4472	CG	GLN	3244	103.029	10.858	119.367	1.00	33.61
ATOM	4473	CD	GLN	3244	103.674	10.485	120.676	1.00	33.52
ATOM	4474	OE1	GLN	3244	104.901	10.500	120.800	1.00	34.41
ATOM	4475	NE2	GLN	3244	102.850	10.154	121.669	1.00	31.76
ATOM	4476	C	GLN	3244	101.660	13.901	118.886	1.00	31.02
ATOM	4477	O	GLN	3244	102.225	14.875	119.389	1.00	31.24
ATOM	4478	N	LEU	3245	100.365	13.652	119.038	1.00	30.44
ATOM	4479	CA	LEU	3245	99.528	14.521	119.844	1.00	29.31
ATOM	4480	CB	LEU	3245	98.191	14.800	119.156	1.00	28.75

Table 6

ATOM	4481	CG	LEU	3245	97.199	15.558	120.052	1.00	28.69
ATOM	4482	CD1	LEU	3245	97.836	16.833	120.593	1.00	27.11
ATOM	4483	CD2	LEU	3245	95.946	15.873	119.270	1.00	27.94
ATOM	4484	C	LEU	3245	99.252	13.878	121.177	1.00	28.63
ATOM	4485	O	LEU	3245	98.953	12.694	121.248	1.00	29.05
ATOM	4486	N	ASP	3246	99.368	14.672	122.231	1.00	27.91
ATOM	4487	CA	ASP	3246	99.095	14.214	123.582	1.00	27.90
ATOM	4488	CB	ASP	3246	100.391	13.965	124.350	1.00	27.24
ATOM	4489	CG	ASP	3246	100.150	13.276	125.677	1.00	27.72
ATOM	4490	OD1	ASP	3246	101.128	12.946	126.379	1.00	29.17
ATOM	4491	OD2	ASP	3246	98.973	13.059	126.022	1.00	27.39
ATOM	4492	C	ASP	3246	98.292	15.321	124.266	1.00	28.92
ATOM	4493	O	ASP	3246	98.747	16.472	124.359	1.00	29.31
ATOM	4494	N	VAL	3247	97.092	14.965	124.726	1.00	28.06
ATOM	4495	CA	VAL	3247	96.182	15.895	125.388	1.00	26.11
ATOM	4496	CB	VAL	3247	94.729	15.709	124.860	1.00	25.73
ATOM	4497	CG1	VAL	3247	93.838	16.839	125.351	1.00	26.58
ATOM	4498	CG2	VAL	3247	94.722	15.652	123.348	1.00	23.43
ATOM	4499	C	VAL	3247	96.189	15.650	126.890	1.00	25.57
ATOM	4500	O	VAL	3247	95.985	14.534	127.335	1.00	25.19
ATOM	4501	N	VAL	3248	96.404	16.711	127.660	1.00	25.99
ATOM	4502	CA	VAL	3248	96.467	16.636	129.115	1.00	25.90
ATOM	4503	CB	VAL	3248	97.739	17.334	129.639	1.00	24.68
ATOM	4504	CG1	VAL	3248	97.791	17.250	131.150	1.00	25.57
ATOM	4505	CG2	VAL	3248	98.969	16.702	129.039	1.00	23.95
ATOM	4506	C	VAL	3248	95.294	17.289	129.820	1.00	26.80
ATOM	4507	O	VAL	3248	95.012	18.460	129.598	1.00	28.79
ATOM	4508	N	GLU	3249	94.643	16.533	130.692	1.00	27.86
ATOM	4509	CA	GLU	3249	93.543	17.062	131.475	1.00	30.65
ATOM	4510	CB	GLU	3249	92.473	15.989	131.695	1.00	33.93
ATOM	4511	CG	GLU	3249	91.804	15.484	130.420	1.00	39.01
ATOM	4512	CD	GLU	3249	91.336	14.032	130.540	1.00	42.24
ATOM	4513	OE1	GLU	3249	92.203	13.129	130.667	1.00	43.35
ATOM	4514	OE2	GLU	3249	90.105	13.791	130.508	1.00	44.63
ATOM	4515	C	GLU	3249	94.221	17.414	132.797	1.00	30.24
ATOM	4516	O	GLU	3249	95.051	16.654	133.283	1.00	29.98
ATOM	4517	N	ARG	3250	93.895	18.569	133.366	1.00	30.25
ATOM	4518	CA	ARG	3250	94.505	18.987	134.623	1.00	30.41
ATOM	4519	CB	ARG	3250	95.033	20.424	134.528	1.00	30.07
ATOM	4520	CG	ARG	3250	96.019	20.709	133.402	1.00	28.85
ATOM	4521	CD	ARG	3250	97.304	19.922	133.576	1.00	27.97
ATOM	4522	NE	ARG	3250	97.881	20.115	134.902	1.00	26.90
ATOM	4523	CZ	ARG	3250	98.860	20.967	135.188	1.00	26.21
ATOM	4524	NH1	ARG	3250	99.398	21.726	134.243	1.00	23.51
ATOM	4525	NH2	ARG	3250	99.300	21.053	136.433	1.00	27.00
ATOM	4526	C	ARG	3250	93.475	18.928	135.728	1.00	31.02
ATOM	4527	O	ARG	3250	92.307	19.200	135.501	1.00	31.46
ATOM	4528	N	SER	3251	93.908	18.567	136.924	1.00	31.93
ATOM	4529	CA	SER	3251	93.002	18.509	138.050	1.00	34.02
ATOM	4530	CB	SER	3251	93.086	17.158	138.745	1.00	35.31
ATOM	4531	OG	SER	3251	92.196	16.241	138.138	1.00	39.58
ATOM	4532	C	SER	3251	93.349	19.622	139.019	1.00	34.88
ATOM	4533	O	SER	3251	94.106	19.430	139.975	1.00	35.54
ATOM	4534	N	PRO	3252	92.794	20.812	138.777	1.00	35.37
ATOM	4535	CD	PRO	3252	91.905	21.123	137.643	1.00	35.49
ATOM	4536	CA	PRO	3252	93.003	22.009	139.586	1.00	36.36

Table 6

ATOM	4537	CB	PRO	3252	92.649	23.124	138.621	1.00	35.28
ATOM	4538	CG	PRO	3252	91.459	22.545	137.954	1.00	35.69
ATOM	4539	C	PRO	3252	92.121	22.034	140.829	1.00	37.74
ATOM	4540	O	PRO	3252	91.161	22.802	140.908	1.00	37.38
ATOM	4541	N	HIS	3253	92.447	21.194	141.799	1.00	39.53
ATOM	4542	CA	HIS	3253	91.678	21.159	143.029	1.00	41.88
ATOM	4543	CB	HIS	3253	90.529	20.134	142.918	1.00	46.74
ATOM	4544	CG	HIS	3253	90.943	18.791	142.384	1.00	52.59
ATOM	4545	CD2	HIS	3253	90.540	18.108	141.283	1.00	54.92
ATOM	4546	ND1	HIS	3253	91.857	17.975	143.024	1.00	55.10
ATOM	4547	CE1	HIS	3253	91.995	16.850	142.343	1.00	55.48
ATOM	4548	NE2	HIS	3253	91.206	16.904	141.283	1.00	55.66
ATOM	4549	C	HIS	3253	92.577	20.854	144.221	1.00	40.56
ATOM	4550	O	HIS	3253	93.738	20.478	144.051	1.00	39.99
ATOM	4551	N	ARG	3254	92.052	21.054	145.426	1.00	39.06
ATOM	4552	CA	ARG	3254	92.819	20.761	146.629	1.00	36.99
ATOM	4553	CB	ARG	3254	92.008	21.110	147.887	1.00	37.56
ATOM	4554	CG	ARG	3254	90.502	20.865	147.776	1.00	39.95
ATOM	4555	CD	ARG	3254	89.743	21.410	149.003	1.00	43.17
ATOM	4556	NE	ARG	3254	88.289	21.496	148.798	1.00	46.65
ATOM	4557	CZ	ARG	3254	87.679	22.342	147.959	1.00	48.09
ATOM	4558	NH1	ARG	3254	88.384	23.198	147.228	1.00	48.53
ATOM	4559	NH2	ARG	3254	86.356	22.327	147.831	1.00	48.59
ATOM	4560	C	ARG	3254	93.129	19.275	146.584	1.00	34.92
ATOM	4561	O	ARG	3254	92.444	18.516	145.909	1.00	34.69
ATOM	4562	N	PRO	3255	94.179	18.837	147.284	1.00	33.60
ATOM	4563	CD	PRO	3255	95.155	19.619	148.060	1.00	33.94
ATOM	4564	CA	PRO	3255	94.530	17.413	147.285	1.00	32.24
ATOM	4565	CB	PRO	3255	95.702	17.353	148.253	1.00	32.62
ATOM	4566	CG	PRO	3255	96.346	18.701	148.074	1.00	33.33
ATOM	4567	C	PRO	3255	93.369	16.527	147.735	1.00	30.77
ATOM	4568	O	PRO	3255	92.468	16.979	148.431	1.00	31.17
ATOM	4569	N	ILE	3256	93.396	15.263	147.338	1.00	29.48
ATOM	4570	CA	ILE	3256	92.341	14.332	147.703	1.00	28.59
ATOM	4571	CB	ILE	3256	91.587	13.839	146.449	1.00	27.91
ATOM	4572	CG2	ILE	3256	90.507	12.845	146.834	1.00	29.43
ATOM	4573	CG1	ILE	3256	90.941	15.022	145.736	1.00	25.98
ATOM	4574	CD1	ILE	3256	90.229	14.643	144.477	1.00	26.04
ATOM	4575	C	ILE	3256	92.965	13.151	148.425	1.00	29.03
ATOM	4576	O	ILE	3256	93.915	12.548	147.926	1.00	29.94
ATOM	4577	N	LEU	3257	92.434	12.826	149.602	1.00	28.80
ATOM	4578	CA	LEU	3257	92.962	11.721	150.399	1.00	28.38
ATOM	4579	CB	LEU	3257	93.061	12.139	151.869	1.00	26.67
ATOM	4580	CG	LEU	3257	93.601	13.547	152.154	1.00	24.49
ATOM	4581	CD1	LEU	3257	93.584	13.840	153.644	1.00	22.81
ATOM	4582	CD2	LEU	3257	94.997	13.659	151.613	1.00	23.52
ATOM	4583	C	LEU	3257	92.072	10.495	150.274	1.00	28.27
ATOM	4584	O	LEU	3257	90.857	10.598	150.393	1.00	28.75
ATOM	4585	N	GLN	3258	92.680	9.337	150.025	1.00	28.85
ATOM	4586	CA	GLN	3258	91.933	8.089	149.891	1.00	28.72
ATOM	4587	CB	GLN	3258	92.896	6.903	149.780	1.00	27.32
ATOM	4588	C	GLN	3258	91.040	7.925	151.114	1.00	28.84
ATOM	4589	O	GLN	3258	91.528	7.882	152.251	1.00	29.72
ATOM	4590	N	ALA	3259	89.732	7.862	150.888	1.00	27.60
ATOM	4591	CA	ALA	3259	88.805	7.704	151.992	1.00	26.97
ATOM	4592	CB	ALA	3259	87.404	7.573	151.469	1.00	26.90

Table 6

ATOM	4593	C	ALA	3259	89.204	6.461	152.777	1.00	27.13
ATOM	4594	O	ALA	3259	89.718	5.500	152.208	1.00	27.15
ATOM	4595	N	GLY	3260	88.991	6.492	154.086	1.00	26.91
ATOM	4596	CA	GLY	3260	89.335	5.347	154.900	1.00	26.38
ATOM	4597	C	GLY	3260	90.718	5.420	155.508	1.00	26.52
ATOM	4598	O	GLY	3260	90.988	4.767	156.519	1.00	26.75
ATOM	4599	N	LEU	3261	91.598	6.210	154.903	1.00	26.39
ATOM	4600	CA	LEU	3261	92.958	6.359	155.417	1.00	27.04
ATOM	4601	CB	LEU	3261	93.962	6.022	154.333	1.00	26.16
ATOM	4602	CG	LEU	3261	93.859	4.620	153.767	1.00	24.65
ATOM	4603	CD1	LEU	3261	94.803	4.487	152.597	1.00	25.97
ATOM	4604	CD2	LEU	3261	94.196	3.623	154.848	1.00	23.96
ATOM	4605	C	LEU	3261	93.231	7.781	155.887	1.00	27.98
ATOM	4606	O	LEU	3261	92.841	8.743	155.221	1.00	28.15
ATOM	4607	N	PRO	3262	93.915	7.935	157.034	1.00	27.82
ATOM	4608	CD	PRO	3262	94.199	9.267	157.596	1.00	27.04
ATOM	4609	CA	PRO	3262	94.443	6.879	157.905	1.00	27.29
ATOM	4610	CB	PRO	3262	95.255	7.657	158.928	1.00	26.57
ATOM	4611	CG	PRO	3262	94.507	8.949	159.031	1.00	25.59
ATOM	4612	C	PRO	3262	93.320	6.090	158.549	1.00	27.40
ATOM	4613	O	PRO	3262	92.171	6.527	158.540	1.00	27.33
ATOM	4614	N	ALA	3263	93.649	4.940	159.122	1.00	27.92
ATOM	4615	CA	ALA	3263	92.624	4.108	159.748	1.00	28.71
ATOM	4616	CB	ALA	3263	92.638	2.730	159.125	1.00	28.45
ATOM	4617	C	ALA	3263	92.749	3.976	161.254	1.00	28.80
ATOM	4618	O	ALA	3263	93.841	3.831	161.779	1.00	29.46
ATOM	4619	N	ASN	3264	91.622	4.019	161.949	1.00	28.97
ATOM	4620	CA	ASN	3264	91.645	3.864	163.389	1.00	28.99
ATOM	4621	CB	ASN	3264	90.234	3.840	163.954	1.00	27.63
ATOM	4622	CG	ASN	3264	89.562	5.166	163.857	1.00	28.47
ATOM	4623	OD1	ASN	3264	90.224	6.183	163.687	1.00	29.69
ATOM	4624	ND2	ASN	3264	88.241	5.181	163.982	1.00	29.95
ATOM	4625	C	ASN	3264	92.303	2.537	163.689	1.00	30.40
ATOM	4626	O	ASN	3264	92.068	1.559	162.991	1.00	31.27
ATOM	4627	N	LYS	3265	93.131	2.497	164.722	1.00	32.26
ATOM	4628	CA	LYS	3265	93.784	1.259	165.096	1.00	34.23
ATOM	4629	CB	LYS	3265	95.195	1.197	164.512	1.00	33.73
ATOM	4630	CG	LYS	3265	95.200	1.353	163.001	1.00	36.20
ATOM	4631	CD	LYS	3265	96.425	0.751	162.324	1.00	35.68
ATOM	4632	CE	LYS	3265	96.349	0.942	160.802	1.00	36.29
ATOM	4633	NZ	LYS	3265	96.399	2.381	160.343	1.00	36.19
ATOM	4634	C	LYS	3265	93.861	1.143	166.598	1.00	36.25
ATOM	4635	O	LYS	3265	94.239	2.095	167.283	1.00	37.73
ATOM	4636	N	THR	3266	93.475	-0.020	167.113	1.00	37.24
ATOM	4637	CA	THR	3266	93.553	-0.280	168.546	1.00	36.86
ATOM	4638	CB	THR	3266	92.287	-0.948	169.090	1.00	37.14
ATOM	4639	OG1	THR	3266	91.211	0.001	169.119	1.00	38.13
ATOM	4640	CG2	THR	3266	92.541	-1.480	170.486	1.00	37.17
ATOM	4641	C	THR	3266	94.699	-1.257	168.690	1.00	36.59
ATOM	4642	O	THR	3266	94.750	-2.266	167.992	1.00	35.31
ATOM	4643	N	VAL	3267	95.637	-0.950	169.570	1.00	37.49
ATOM	4644	CA	VAL	3267	96.765	-1.839	169.756	1.00	38.41
ATOM	4645	CB	VAL	3267	97.956	-1.443	168.889	1.00	37.78
ATOM	4646	CG1	VAL	3267	97.582	-1.534	167.427	1.00	36.85
ATOM	4647	CG2	VAL	3267	98.424	-0.056	169.269	1.00	38.27
ATOM	4648	C	VAL	3267	97.251	-1.931	171.184	1.00	39.74

Table 6

ATOM	4649	O	VAL	3267	96.917	-1.103	172.037	1.00	39.65
ATOM	4650	N	ALA	3268	98.062	-2.958	171.415	1.00	41.45
ATOM	4651	CA	ALA	3268	98.634	-3.248	172.719	1.00	42.65
ATOM	4652	CB	ALA	3268	99.206	-4.659	172.717	1.00	42.62
ATOM	4653	C	ALA	3268	99.716	-2.248	173.102	1.00	42.98
ATOM	4654	O	ALA	3268	100.460	-1.753	172.254	1.00	42.72
ATOM	4655	N	LEU	3269	99.793	-1.949	174.390	1.00	43.80
ATOM	4656	CA	LEU	3269	100.799	-1.025	174.878	1.00	44.03
ATOM	4657	CB	LEU	3269	100.722	-0.936	176.402	1.00	43.53
ATOM	4658	CG	LEU	3269	101.513	0.180	177.076	1.00	43.63
ATOM	4659	CD1	LEU	3269	101.185	0.198	178.554	1.00	42.55
ATOM	4660	CD2	LEU	3269	102.997	-0.026	176.847	1.00	43.57
ATOM	4661	C	LEU	3269	102.157	-1.562	174.443	1.00	44.04
ATOM	4662	O	LEU	3269	102.408	-2.767	174.518	1.00	44.70
ATOM	4663	N	GLY	3270	103.019	-0.670	173.967	1.00	44.06
ATOM	4664	CA	GLY	3270	104.345	-1.072	173.533	1.00	44.11
ATOM	4665	C	GLY	3270	104.444	-1.611	172.120	1.00	43.68
ATOM	4666	O	GLY	3270	105.537	-1.870	171.631	1.00	44.34
ATOM	4667	N	SER	3271	103.313	-1.782	171.452	1.00	43.40
ATOM	4668	CA	SER	3271	103.331	-2.300	170.095	1.00	43.72
ATOM	4669	CB	SER	3271	101.916	-2.647	169.654	1.00	44.49
ATOM	4670	OG	SER	3271	101.400	-3.715	170.425	1.00	47.59
ATOM	4671	C	SER	3271	103.937	-1.324	169.100	1.00	43.31
ATOM	4672	O	SER	3271	104.451	-0.272	169.472	1.00	43.23
ATOM	4673	N	ASN	3272	103.893	-1.702	167.828	1.00	42.89
ATOM	4674	CA	ASN	3272	104.381	-0.853	166.754	1.00	42.44
ATOM	4675	CB	ASN	3272	105.553	-1.500	166.020	1.00	42.30
ATOM	4676	CG	ASN	3272	106.897	-1.031	166.560	1.00	43.38
ATOM	4677	OD1	ASN	3272	107.047	-0.801	167.760	1.00	44.26
ATOM	4678	ND2	ASN	3272	107.882	-0.895	165.678	1.00	42.85
ATOM	4679	C	ASN	3272	103.207	-0.638	165.826	1.00	41.87
ATOM	4680	O	ASN	3272	102.445	-1.562	165.533	1.00	42.45
ATOM	4681	N	VAL	3273	103.031	0.594	165.386	1.00	40.66
ATOM	4682	CA	VAL	3273	101.922	0.876	164.506	1.00	40.23
ATOM	4683	CB	VAL	3273	100.717	1.369	165.329	1.00	40.17
ATOM	4684	CG1	VAL	3273	101.096	2.625	166.103	1.00	40.95
ATOM	4685	CG2	VAL	3273	99.523	1.601	164.420	1.00	40.27
ATOM	4686	C	VAL	3273	102.312	1.882	163.427	1.00	39.67
ATOM	4687	O	VAL	3273	103.176	2.743	163.638	1.00	38.85
ATOM	4688	N	GLU	3274	101.697	1.740	162.258	1.00	38.75
ATOM	4689	CA	GLU	3274	101.973	2.635	161.153	1.00	39.69
ATOM	4690	CB	GLU	3274	102.820	1.930	160.090	1.00	41.41
ATOM	4691	CG	GLU	3274	102.174	0.682	159.520	1.00	45.93
ATOM	4692	CD	GLU	3274	102.775	0.252	158.193	1.00	47.99
ATOM	4693	OE1	GLU	3274	103.969	-0.130	158.166	1.00	49.33
ATOM	4694	OE2	GLU	3274	102.046	0.303	157.174	1.00	48.79
ATOM	4695	C	GLU	3274	100.658	3.111	160.540	1.00	39.16
ATOM	4696	O	GLU	3274	99.771	2.307	160.239	1.00	39.37
ATOM	4697	N	PHE	3275	100.533	4.426	160.377	1.00	37.34
ATOM	4698	CA	PHE	3275	99.343	5.025	159.794	1.00	35.65
ATOM	4699	CB	PHE	3275	98.988	6.312	160.531	1.00	35.93
ATOM	4700	CG	PHE	3275	98.371	6.086	161.888	1.00	36.46
ATOM	4701	CD1	PHE	3275	97.000	5.865	162.018	1.00	36.34
ATOM	4702	CD2	PHE	3275	99.158	6.108	163.039	1.00	36.18
ATOM	4703	CE1	PHE	3275	96.425	5.677	163.266	1.00	35.66
ATOM	4704	CE2	PHE	3275	98.593	5.920	164.288	1.00	35.26

Table 6

ATOM	4705	CZ	PHE	3275	97.223	5.706	164.403	1.00	36.25
ATOM	4706	C	PHE	3275	99.623	5.325	158.340	1.00	34.81
ATOM	4707	O	PHE	3275	100.748	5.633	157.980	1.00	35.61
ATOM	4708	N	MET	3276	98.605	5.232	157.497	1.00	33.75
ATOM	4709	CA	MET	3276	98.805	5.490	156.087	1.00	32.92
ATOM	4710	CB	MET	3276	98.557	4.243	155.262	1.00	34.99
ATOM	4711	CG	MET	3276	99.786	3.391	155.060	1.00	38.18
ATOM	4712	SD	MET	3276	99.571	2.378	153.591	1.00	42.05
ATOM	4713	CE	MET	3276	99.885	3.632	152.264	1.00	41.35
ATOM	4714	C	MET	3276	97.958	6.602	155.543	1.00	31.97
ATOM	4715	O	MET	3276	96.865	6.874	156.026	1.00	31.01
ATOM	4716	N	CYS	3277	98.475	7.231	154.500	1.00	32.15
ATOM	4717	CA	CYS	3277	97.797	8.345	153.874	1.00	32.48
ATOM	4718	C	CYS	3277	98.093	8.406	152.389	1.00	32.61
ATOM	4719	O	CYS	3277	99.217	8.710	152.001	1.00	33.63
ATOM	4720	CB	CYS	3277	98.268	9.629	154.515	1.00	31.50
ATOM	4721	SG	CYS	3277	97.213	11.028	154.104	1.00	32.81
ATOM	4722	N	LYS	3278	97.086	8.124	151.566	1.00	32.56
ATOM	4723	CA	LYS	3278	97.234	8.140	150.113	1.00	32.30
ATOM	4724	CB	LYS	3278	96.478	6.953	149.507	1.00	34.17
ATOM	4725	CG	LYS	3278	97.321	6.022	148.640	1.00	37.65
ATOM	4726	CD	LYS	3278	96.442	5.147	147.720	1.00	40.56
ATOM	4727	CE	LYS	3278	95.583	5.998	146.746	1.00	41.33
ATOM	4728	NZ	LYS	3278	94.680	5.218	145.833	1.00	38.90
ATOM	4729	C	LYS	3278	96.684	9.462	149.554	1.00	31.44
ATOM	4730	O	LYS	3278	95.478	9.710	149.599	1.00	31.95
ATOM	4731	N	VAL	3279	97.565	10.307	149.024	1.00	29.86
ATOM	4732	CA	VAL	3279	97.158	11.607	148.489	1.00	27.85
ATOM	4733	CB	VAL	3279	98.071	12.734	148.985	1.00	26.96
ATOM	4734	CG1	VAL	3279	97.568	14.064	148.475	1.00	25.70
ATOM	4735	CG2	VAL	3279	98.140	12.728	150.483	1.00	28.06
ATOM	4736	C	VAL	3279	97.188	11.716	146.980	1.00	27.93
ATOM	4737	O	VAL	3279	98.060	11.149	146.327	1.00	28.90
ATOM	4738	N	TYR	3280	96.227	12.453	146.431	1.00	27.27
ATOM	4739	CA	TYR	3280	96.186	12.703	144.998	1.00	26.48
ATOM	4740	CB	TYR	3280	94.926	12.163	144.340	1.00	26.34
ATOM	4741	CG	TYR	3280	94.883	12.547	142.877	1.00	26.58
ATOM	4742	CD1	TYR	3280	95.678	11.883	141.945	1.00	26.09
ATOM	4743	CE1	TYR	3280	95.758	12.303	140.626	1.00	25.75
ATOM	4744	CD2	TYR	3280	94.146	13.649	142.445	1.00	26.17
ATOM	4745	CE2	TYR	3280	94.215	14.084	141.126	1.00	27.68
ATOM	4746	CZ	TYR	3280	95.033	13.408	140.218	1.00	28.39
ATOM	4747	OH	TYR	3280	95.172	13.866	138.917	1.00	29.19
ATOM	4748	C	TYR	3280	96.195	14.212	144.820	1.00	26.25
ATOM	4749	O	TYR	3280	95.560	14.930	145.585	1.00	26.63
ATOM	4750	N	SER	3281	96.911	14.697	143.816	1.00	25.82
ATOM	4751	CA	SER	3281	96.964	16.130	143.570	1.00	25.99
ATOM	4752	CB	SER	3281	97.601	16.859	144.764	1.00	27.74
ATOM	4753	OG	SER	3281	97.606	18.270	144.578	1.00	29.73
ATOM	4754	C	SER	3281	97.757	16.405	142.317	1.00	24.60
ATOM	4755	O	SER	3281	98.848	15.882	142.143	1.00	24.71
ATOM	4756	N	ASP	3282	97.194	17.217	141.431	1.00	24.73
ATOM	4757	CA	ASP	3282	97.891	17.549	140.206	1.00	24.05
ATOM	4758	CB	ASP	3282	96.981	18.367	139.285	1.00	24.90
ATOM	4759	CG	ASP	3282	97.553	18.525	137.897	1.00	26.63
ATOM	4760	OD1	ASP	3282	96.849	19.040	136.992	1.00	26.29

Table 6

ATOM	4761	OD2	ASP	3282	98.719	18.127	137.717	1.00	28.43
ATOM	4762	C	ASP	3282	99.096	18.357	140.673	1.00	23.14
ATOM	4763	O	ASP	3282	100.230	17.872	140.629	1.00	23.70
ATOM	4764	N	PRO	3283	98.867	19.584	141.173	1.00	21.96
ATOM	4765	CD	PRO	3283	97.607	20.287	141.441	1.00	21.41
ATOM	4766	CA	PRO	3283	99.988	20.391	141.634	1.00	21.24
ATOM	4767	CB	PRO	3283	99.316	21.668	142.111	1.00	20.49
ATOM	4768	CG	PRO	3283	98.043	21.698	141.376	1.00	19.84
ATOM	4769	C	PRO	3283	100.673	19.652	142.775	1.00	22.00
ATOM	4770	O	PRO	3283	100.019	18.974	143.569	1.00	22.58
ATOM	4771	N	GLN	3284	101.985	19.787	142.862	1.00	21.77
ATOM	4772	CA	GLN	3284	102.731	19.100	143.894	1.00	22.25
ATOM	4773	CB	GLN	3284	104.193	19.519	143.817	1.00	22.11
ATOM	4774	CG	GLN	3284	105.167	18.363	143.885	1.00	21.39
ATOM	4775	CD	GLN	3284	104.727	17.168	143.070	1.00	20.44
ATOM	4776	OE1	GLN	3284	104.308	17.294	141.927	1.00	21.08
ATOM	4777	NE2	GLN	3284	104.839	15.993	143.659	1.00	22.03
ATOM	4778	C	GLN	3284	102.138	19.397	145.259	1.00	23.07
ATOM	4779	O	GLN	3284	102.113	20.541	145.696	1.00	25.06
ATOM	4780	N	PRO	3285	101.625	18.365	145.943	1.00	23.82
ATOM	4781	CD	PRO	3285	101.402	16.995	145.447	1.00	23.47
ATOM	4782	CA	PRO	3285	101.022	18.529	147.266	1.00	24.63
ATOM	4783	CB	PRO	3285	100.077	17.342	147.355	1.00	23.30
ATOM	4784	CG	PRO	3285	100.879	16.277	146.685	1.00	23.16
ATOM	4785	C	PRO	3285	102.052	18.501	148.379	1.00	25.09
ATOM	4786	O	PRO	3285	103.148	17.968	148.206	1.00	25.46
ATOM	4787	N	HIS	3286	101.700	19.080	149.518	1.00	25.38
ATOM	4788	CA	HIS	3286	102.610	19.062	150.635	1.00	25.96
ATOM	4789	CB	HIS	3286	103.016	20.461	151.040	1.00	26.69
ATOM	4790	CG	HIS	3286	104.002	20.468	152.154	1.00	27.68
ATOM	4791	CD2	HIS	3286	105.002	19.608	152.454	1.00	28.17
ATOM	4792	ND1	HIS	3286	104.003	21.419	153.148	1.00	29.66
ATOM	4793	CE1	HIS	3286	104.960	21.141	154.016	1.00	30.81
ATOM	4794	NE2	HIS	3286	105.581	20.045	153.617	1.00	29.40
ATOM	4795	C	HIS	3286	101.947	18.357	151.810	1.00	26.58
ATOM	4796	O	HIS	3286	101.061	18.905	152.472	1.00	26.84
ATOM	4797	N	ILE	3287	102.384	17.128	152.055	1.00	26.39
ATOM	4798	CA	ILE	3287	101.846	16.312	153.131	1.00	26.11
ATOM	4799	CB	ILE	3287	102.083	14.831	152.853	1.00	24.99
ATOM	4800	CG2	ILE	3287	101.725	13.997	154.069	1.00	22.95
ATOM	4801	CG1	ILE	3287	101.288	14.420	151.626	1.00	23.31
ATOM	4802	CD1	ILE	3287	101.531	13.009	151.238	1.00	25.95
ATOM	4803	C	ILE	3287	102.483	16.630	154.464	1.00	26.79
ATOM	4804	O	ILE	3287	103.640	17.022	154.533	1.00	28.01
ATOM	4805	N	GLN	3288	101.728	16.429	155.532	1.00	26.95
ATOM	4806	CA	GLN	3288	102.231	16.695	156.868	1.00	27.08
ATOM	4807	CB	GLN	3288	102.097	18.183	157.182	1.00	26.69
ATOM	4808	CG	GLN	3288	102.317	18.539	158.635	1.00	27.45
ATOM	4809	CD	GLN	3288	102.359	20.033	158.867	1.00	27.88
ATOM	4810	OE1	GLN	3288	103.433	20.619	159.023	1.00	29.46
ATOM	4811	NE2	GLN	3288	101.190	20.663	158.880	1.00	26.56
ATOM	4812	C	GLN	3288	101.445	15.870	157.871	1.00	27.00
ATOM	4813	O	GLN	3288	100.217	15.850	157.821	1.00	26.94
ATOM	4814	N	TRP	3289	102.156	15.192	158.772	1.00	25.98
ATOM	4815	CA	TRP	3289	101.527	14.360	159.784	1.00	25.52
ATOM	4816	CB	TRP	3289	102.339	13.077	159.985	1.00	24.71

Table 6

ATOM	4817	CG	TRP	3289	102.001	12.024	158.990	1.00	23.67
ATOM	4818	CD2	TRP	3289	100.833	11.188	159.005	1.00	23.20
ATOM	4819	CE2	TRP	3289	100.883	10.379	157.843	1.00	23.28
ATOM	4820	CE3	TRP	3289	99.748	11.039	159.886	1.00	21.68
ATOM	4821	CD1	TRP	3289	102.692	11.702	157.857	1.00	22.61
ATOM	4822	NE1	TRP	3289	102.026	10.715	157.157	1.00	22.39
ATOM	4823	CZ2	TRP	3289	99.890	9.435	157.539	1.00	22.38
ATOM	4824	CZ3	TRP	3289	98.760	10.100	159.588	1.00	20.53
ATOM	4825	CH2	TRP	3289	98.840	9.311	158.425	1.00	21.32
ATOM	4826	C	TRP	3289	101.388	15.099	161.099	1.00	25.71
ATOM	4827	O	TRP	3289	102.340	15.701	161.562	1.00	26.33
ATOM	4828	N	LEU	3290	100.202	15.036	161.698	1.00	26.63
ATOM	4829	CA	LEU	3290	99.917	15.711	162.964	1.00	27.02
ATOM	4830	CB	LEU	3290	98.867	16.788	162.753	1.00	26.33
ATOM	4831	CG	LEU	3290	99.341	18.190	162.414	1.00	27.76
ATOM	4832	CD1	LEU	3290	100.458	18.139	161.383	1.00	27.91
ATOM	4833	CD2	LEU	3290	98.144	19.000	161.925	1.00	28.54
ATOM	4834	C	LEU	3290	99.392	14.804	164.050	1.00	27.20
ATOM	4835	O	LEU	3290	98.741	13.814	163.769	1.00	27.70
ATOM	4836	N	LYS	3291	99.665	15.174	165.296	1.00	28.78
ATOM	4837	CA	LYS	3291	99.177	14.445	166.459	1.00	29.05
ATOM	4838	CB	LYS	3291	100.329	13.897	167.291	1.00	29.73
ATOM	4839	CG	LYS	3291	99.984	12.618	168.038	1.00	31.72
ATOM	4840	CD	LYS	3291	98.679	12.748	168.800	1.00	33.36
ATOM	4841	CE	LYS	3291	98.430	11.538	169.679	1.00	34.04
ATOM	4842	NZ	LYS	3291	99.427	11.440	170.784	1.00	35.47
ATOM	4843	C	LYS	3291	98.439	15.516	167.238	1.00	29.09
ATOM	4844	O	LYS	3291	98.938	16.622	167.388	1.00	28.60
ATOM	4845	N	HIS	3292	97.239	15.208	167.703	1.00	30.58
ATOM	4846	CA	HIS	3292	96.445	16.185	168.444	1.00	31.34
ATOM	4847	CB	HIS	3292	94.970	16.004	168.131	1.00	31.40
ATOM	4848	CG	HIS	3292	94.605	16.387	166.738	1.00	32.93
ATOM	4849	CD2	HIS	3292	95.140	17.299	165.895	1.00	35.18
ATOM	4850	ND1	HIS	3292	93.543	15.824	166.068	1.00	34.66
ATOM	4851	CE1	HIS	3292	93.437	16.372	164.870	1.00	36.22
ATOM	4852	NE2	HIS	3292	94.395	17.271	164.740	1.00	35.90
ATOM	4853	C	HIS	3292	96.659	16.037	169.929	1.00	31.79
ATOM	4854	O	HIS	3292	96.496	14.943	170.458	1.00	32.99
ATOM	4855	N	VAL	3308	98.305	20.855	168.555	1.00	33.31
ATOM	4856	CA	VAL	3308	98.883	19.814	167.709	1.00	33.62
ATOM	4857	CB	VAL	3308	98.555	20.032	166.217	1.00	35.09
ATOM	4858	CG1	VAL	3308	97.059	19.930	165.979	1.00	36.03
ATOM	4859	CG2	VAL	3308	99.094	21.385	165.765	1.00	35.70
ATOM	4860	C	VAL	3308	100.397	19.718	167.794	1.00	32.33
ATOM	4861	O	VAL	3308	101.075	20.661	168.186	1.00	32.08
ATOM	4862	N	GLN	3309	100.910	18.560	167.397	1.00	31.42
ATOM	4863	CA	GLN	3309	102.336	18.288	167.392	1.00	30.75
ATOM	4864	CB	GLN	3309	102.675	17.191	168.410	1.00	31.95
ATOM	4865	CG	GLN	3309	104.007	16.468	168.141	1.00	34.88
ATOM	4866	CD	GLN	3309	104.304	15.344	169.141	1.00	35.19
ATOM	4867	OE1	GLN	3309	103.392	14.756	169.711	1.00	36.34
ATOM	4868	NE2	GLN	3309	105.583	15.035	169.336	1.00	35.52
ATOM	4869	C	GLN	3309	102.723	17.832	165.995	1.00	29.59
ATOM	4870	O	GLN	3309	102.300	16.772	165.539	1.00	28.60
ATOM	4871	N	ILE	3310	103.513	18.637	165.300	1.00	28.64
ATOM	4872	CA	ILE	3310	103.928	18.245	163.966	1.00	28.25

Table 6

ATOM	4873	CB	ILE	3310	104.687	19.375	163.290	1.00	27.05
ATOM	4874	CG2	ILE	3310	104.924	19.036	161.827	1.00	27.29
ATOM	4875	CG1	ILE	3310	103.867	20.659	163.402	1.00	25.95
ATOM	4876	CD1	ILE	3310	102.474	20.535	162.842	1.00	25.28
ATOM	4877	C	ILE	3310	104.817	17.023	164.137	1.00	28.35
ATOM	4878	O	ILE	3310	105.716	17.029	164.966	1.00	30.56
ATOM	4879	N	LEU	3311	104.559	15.969	163.376	1.00	26.83
ATOM	4880	CA	LEU	3311	105.338	14.757	163.507	1.00	26.51
ATOM	4881	CB	LEU	3311	104.407	13.586	163.794	1.00	27.78
ATOM	4882	CG	LEU	3311	103.551	13.603	165.062	1.00	29.96
ATOM	4883	CD1	LEU	3311	102.534	12.465	165.022	1.00	29.35
ATOM	4884	CD2	LEU	3311	104.444	13.467	166.271	1.00	29.85
ATOM	4885	C	LEU	3311	106.167	14.432	162.274	1.00	26.85
ATOM	4886	O	LEU	3311	107.209	13.770	162.373	1.00	27.47
ATOM	4887	N	LYS	3312	105.710	14.900	161.118	1.00	25.90
ATOM	4888	CA	LYS	3312	106.378	14.616	159.854	1.00	25.76
ATOM	4889	CB	LYS	3312	105.872	13.280	159.324	1.00	25.36
ATOM	4890	CG	LYS	3312	106.915	12.282	158.892	1.00	25.89
ATOM	4891	CD	LYS	3312	106.235	10.938	158.654	1.00	27.58
ATOM	4892	CE	LYS	3312	107.197	9.869	158.178	1.00	28.64
ATOM	4893	NZ	LYS	3312	107.855	10.257	156.901	1.00	32.12
ATOM	4894	C	LYS	3312	106.002	15.698	158.860	1.00	27.10
ATOM	4895	O	LYS	3312	104.842	16.084	158.787	1.00	27.89
ATOM	4896	N	THR	3313	106.962	16.197	158.092	1.00	28.16
ATOM	4897	CA	THR	3313	106.626	17.209	157.111	1.00	28.36
ATOM	4898	CB	THR	3313	106.904	18.605	157.619	1.00	28.41
ATOM	4899	OG1	THR	3313	106.321	18.776	158.922	1.00	26.38
ATOM	4900	CG2	THR	3313	106.297	19.613	156.654	1.00	27.90
ATOM	4901	C	THR	3313	107.371	16.994	155.812	1.00	29.78
ATOM	4902	O	THR	3313	108.585	16.786	155.802	1.00	30.51
ATOM	4903	N	ALA	3314	106.631	17.030	154.709	1.00	30.89
ATOM	4904	CA	ALA	3314	107.217	16.813	153.395	1.00	31.26
ATOM	4905	CB	ALA	3314	106.135	16.832	152.330	1.00	30.42
ATOM	4906	C	ALA	3314	108.282	17.858	153.095	1.00	32.51
ATOM	4907	O	ALA	3314	108.206	19.003	153.561	1.00	33.18
ATOM	4908	N	GLY	3315	109.287	17.452	152.326	1.00	32.40
ATOM	4909	CA	GLY	3315	110.354	18.368	151.989	1.00	33.03
ATOM	4910	C	GLY	3315	111.629	17.655	151.605	1.00	33.19
ATOM	4911	O	GLY	3315	111.676	16.430	151.559	1.00	33.31
ATOM	4912	N	VAL	3316	112.674	18.422	151.334	1.00	33.28
ATOM	4913	CA	VAL	3316	113.940	17.835	150.939	1.00	33.88
ATOM	4914	CB	VAL	3316	115.005	18.914	150.733	1.00	34.21
ATOM	4915	CG1	VAL	3316	116.285	18.277	150.230	1.00	34.24
ATOM	4916	CG2	VAL	3316	114.501	19.962	149.751	1.00	36.08
ATOM	4917	C	VAL	3316	114.468	16.826	151.954	1.00	33.92
ATOM	4918	O	VAL	3316	115.084	15.832	151.589	1.00	34.86
ATOM	4919	N	ASN	3317	114.227	17.083	153.231	1.00	34.25
ATOM	4920	CA	ASN	3317	114.692	16.199	154.301	1.00	35.21
ATOM	4921	CB	ASN	3317	114.673	16.942	155.633	1.00	35.24
ATOM	4922	CG	ASN	3317	116.009	17.517	155.997	1.00	35.15
ATOM	4923	OD1	ASN	3317	116.098	18.352	156.890	1.00	36.57
ATOM	4924	ND2	ASN	3317	117.063	17.066	155.325	1.00	34.76
ATOM	4925	C	ASN	3317	113.836	14.951	154.452	1.00	35.25
ATOM	4926	O	ASN	3317	114.295	13.913	154.928	1.00	34.93
ATOM	4927	N	THR	3318	112.574	15.085	154.074	1.00	35.45
ATOM	4928	CA	THR	3318	111.613	14.004	154.154	1.00	34.57

Table 6

ATOM	4929	CB	THR	3318	110.697	14.188	155.359	1.00	34.63
ATOM	4930	OG1	THR	3318	111.387	13.740	156.524	1.00	35.24
ATOM	4931	CG2	THR	3318	109.425	13.398	155.205	1.00	35.62
ATOM	4932	C	THR	3318	110.810	14.030	152.875	1.00	34.43
ATOM	4933	O	THR	3318	109.789	14.717	152.772	1.00	35.33
ATOM	4934	N	THR	3319	111.299	13.280	151.894	1.00	33.51
ATOM	4935	CA	THR	3319	110.676	13.198	150.575	1.00	33.00
ATOM	4936	CB	THR	3319	111.553	12.422	149.605	1.00	33.68
ATOM	4937	OG1	THR	3319	111.709	11.081	150.088	1.00	35.48
ATOM	4938	CG2	THR	3319	112.907	13.074	149.491	1.00	34.63
ATOM	4939	C	THR	3319	109.333	12.501	150.580	1.00	31.26
ATOM	4940	O	THR	3319	109.050	11.693	151.458	1.00	29.93
ATOM	4941	N	ASP	3320	108.523	12.795	149.568	1.00	30.50
ATOM	4942	CA	ASP	3320	107.210	12.182	149.461	1.00	30.55
ATOM	4943	CB	ASP	3320	106.503	12.584	148.161	1.00	28.17
ATOM	4944	CG	ASP	3320	106.042	14.019	148.167	1.00	27.85
ATOM	4945	OD1	ASP	3320	105.597	14.487	149.231	1.00	27.23
ATOM	4946	OD2	ASP	3320	106.105	14.684	147.106	1.00	28.78
ATOM	4947	C	ASP	3320	107.286	10.658	149.533	1.00	31.92
ATOM	4948	O	ASP	3320	106.290	10.004	149.809	1.00	32.69
ATOM	4949	N	LYS	3321	108.461	10.086	149.292	1.00	33.95
ATOM	4950	CA	LYS	3321	108.610	8.629	149.339	1.00	36.05
ATOM	4951	CB	LYS	3321	110.082	8.207	149.235	1.00	37.48
ATOM	4952	CG	LYS	3321	110.875	8.827	148.104	1.00	40.58
ATOM	4953	CD	LYS	3321	112.334	8.364	148.143	1.00	41.71
ATOM	4954	CE	LYS	3321	113.216	9.147	147.143	1.00	43.81
ATOM	4955	NZ	LYS	3321	113.474	10.569	147.540	1.00	42.72
ATOM	4956	C	LYS	3321	108.081	8.089	150.662	1.00	36.80
ATOM	4957	O	LYS	3321	107.245	7.192	150.697	1.00	37.06
ATOM	4958	N	GLU	3322	108.587	8.655	151.749	1.00	37.48
ATOM	4959	CA	GLU	3322	108.230	8.231	153.090	1.00	37.30
ATOM	4960	CB	GLU	3322	109.474	8.348	153.979	1.00	37.73
ATOM	4961	CG	GLU	3322	110.240	9.669	153.828	1.00	38.94
ATOM	4962	CD	GLU	3322	111.531	9.733	154.670	1.00	40.03
ATOM	4963	OE1	GLU	3322	111.461	9.579	155.907	1.00	40.38
ATOM	4964	OE2	GLU	3322	112.619	9.949	154.096	1.00	38.38
ATOM	4965	C	GLU	3322	107.068	8.973	153.736	1.00	37.08
ATOM	4966	O	GLU	3322	106.689	8.669	154.866	1.00	37.38
ATOM	4967	N	MET	3323	106.482	9.927	153.028	1.00	36.89
ATOM	4968	CA	MET	3323	105.398	10.701	153.617	1.00	36.85
ATOM	4969	CB	MET	3323	105.262	12.050	152.916	1.00	36.10
ATOM	4970	CG	MET	3323	106.301	13.046	153.360	1.00	35.17
ATOM	4971	SD	MET	3323	106.375	13.079	155.146	1.00	34.67
ATOM	4972	CE	MET	3323	105.124	14.366	155.511	1.00	36.26
ATOM	4973	C	MET	3323	104.040	10.043	153.681	1.00	37.22
ATOM	4974	O	MET	3323	103.179	10.478	154.436	1.00	36.96
ATOM	4975	N	GLU	3324	103.832	8.995	152.904	1.00	38.41
ATOM	4976	CA	GLU	3324	102.534	8.345	152.925	1.00	39.48
ATOM	4977	CB	GLU	3324	102.279	7.610	151.601	1.00	41.21
ATOM	4978	CG	GLU	3324	101.872	8.557	150.470	1.00	44.98
ATOM	4979	CD	GLU	3324	101.655	7.860	149.133	1.00	47.50
ATOM	4980	OE1	GLU	3324	102.561	7.112	148.693	1.00	49.13
ATOM	4981	OE2	GLU	3324	100.583	8.073	148.517	1.00	47.27
ATOM	4982	C	GLU	3324	102.348	7.400	154.102	1.00	38.42
ATOM	4983	O	GLU	3324	101.277	6.819	154.264	1.00	38.84
ATOM	4984	N	VAL	3325	103.373	7.254	154.934	1.00	36.79

ATOM	4985	CA	VAL	3325	103.251	6.369	156.082	1.00	36.97
ATOM	4986	CB	VAL	3325	103.781	4.964	155.751	1.00	37.10
ATOM	4987	CG1	VAL	3325	105.287	5.005	155.589	1.00	38.60
ATOM	4988	CG2	VAL	3325	103.362	3.978	156.839	1.00	37.47
ATOM	4989	C	VAL	3325	103.949	6.887	157.343	1.00	36.67
ATOM	4990	O	VAL	3325	105.134	7.228	157.326	1.00	36.97
ATOM	4991	N	LEU	3326	103.187	6.947	158.434	1.00	36.14
ATOM	4992	CA	LEU	3326	103.676	7.414	159.726	1.00	35.61
ATOM	4993	CB	LEU	3326	102.621	8.285	160.401	1.00	34.11
ATOM	4994	CG	LEU	3326	102.948	8.760	161.820	1.00	32.88
ATOM	4995	CD1	LEU	3326	103.965	9.873	161.749	1.00	32.34
ATOM	4996	CD2	LEU	3326	101.691	9.260	162.514	1.00	32.32
ATOM	4997	C	LEU	3326	103.973	6.229	160.626	1.00	36.01
ATOM	4998	O	LEU	3326	103.082	5.450	160.938	1.00	35.57
ATOM	4999	N	HIS	3327	105.219	6.100	161.055	1.00	37.25
ATOM	5000	CA	HIS	3327	105.589	4.988	161.917	1.00	38.62
ATOM	5001	CB	HIS	3327	106.946	4.418	161.499	1.00	38.38
ATOM	5002	CG	HIS	3327	106.946	3.801	160.137	1.00	38.81
ATOM	5003	CD2	HIS	3327	107.578	4.160	158.995	1.00	39.55
ATOM	5004	ND1	HIS	3327	106.192	2.691	159.827	1.00	39.56
ATOM	5005	CE1	HIS	3327	106.358	2.392	158.550	1.00	40.57
ATOM	5006	NE2	HIS	3327	107.193	3.269	158.022	1.00	40.54
ATOM	5007	C	HIS	3327	105.637	5.393	163.380	1.00	39.22
ATOM	5008	O	HIS	3327	106.352	6.323	163.759	1.00	40.18
ATOM	5009	N	LEU	3328	104.860	4.700	164.200	1.00	39.00
ATOM	5010	CA	LEU	3328	104.844	4.969	165.628	1.00	39.52
ATOM	5011	CB	LEU	3328	103.411	5.206	166.109	1.00	37.32
ATOM	5012	CG	LEU	3328	102.827	6.503	165.553	1.00	34.16
ATOM	5013	CD1	LEU	3328	101.395	6.658	165.989	1.00	33.49
ATOM	5014	CD2	LEU	3328	103.662	7.666	166.027	1.00	31.86
ATOM	5015	C	LEU	3328	105.455	3.743	166.289	1.00	40.92
ATOM	5016	O	LEU	3328	104.804	2.701	166.411	1.00	42.42
ATOM	5017	N	ARG	3329	106.716	3.872	166.691	1.00	41.43
ATOM	5018	CA	ARG	3329	107.458	2.779	167.309	1.00	42.24
ATOM	5019	CB	ARG	3329	108.961	2.978	167.055	1.00	41.52
ATOM	5020	C	ARG	3329	107.198	2.632	168.808	1.00	43.06
ATOM	5021	O	ARG	3329	107.152	3.619	169.548	1.00	42.13
ATOM	5022	N	ASN	3330	107.041	1.381	169.237	1.00	44.91
ATOM	5023	CA	ASN	3330	106.779	1.021	170.631	1.00	46.49
ATOM	5024	CB	ASN	3330	108.098	0.789	171.368	1.00	49.25
ATOM	5025	CG	ASN	3330	107.918	-0.062	172.612	1.00	52.46
ATOM	5026	OD1	ASN	3330	107.584	0.447	173.687	1.00	54.72
ATOM	5027	ND2	ASN	3330	108.115	-1.371	172.466	1.00	52.46
ATOM	5028	C	ASN	3330	105.925	2.052	171.360	1.00	45.35
ATOM	5029	O	ASN	3330	106.423	2.855	172.149	1.00	44.07
ATOM	5030	N	VAL	3331	104.623	1.997	171.092	1.00	45.27
ATOM	5031	CA	VAL	3331	103.669	2.940	171.665	1.00	45.66
ATOM	5032	CB	VAL	3331	102.279	2.808	171.012	1.00	45.12
ATOM	5033	CG1	VAL	3331	102.402	3.009	169.527	1.00	45.99
ATOM	5034	CG2	VAL	3331	101.676	1.456	171.311	1.00	45.51
ATOM	5035	C	VAL	3331	103.493	2.883	173.168	1.00	45.52
ATOM	5036	O	VAL	3331	103.907	1.936	173.822	1.00	45.96
ATOM	5037	N	SER	3332	102.865	3.925	173.696	1.00	46.11
ATOM	5038	CA	SER	3332	102.604	4.070	175.124	1.00	46.31
ATOM	5039	CB	SER	3332	103.630	4.995	175.762	1.00	45.69
ATOM	5040	OG	SER	3332	103.286	6.351	175.497	1.00	42.92

ATOM	5041	C	SER	3332	101.246	4.739	175.266	1.00	47.42
ATOM	5042	O	SER	3332	100.731	5.312	174.308	1.00	48.20
ATOM	5043	N	PHE	3333	100.677	4.698	176.465	1.00	48.10
ATOM	5044	CA	PHE	3333	99.379	5.326	176.700	1.00	49.03
ATOM	5045	CB	PHE	3333	98.985	5.212	178.184	1.00	50.19
ATOM	5046	CG	PHE	3333	98.614	3.811	178.610	1.00	52.17
ATOM	5047	CD1	PHE	3333	98.798	3.397	179.918	1.00	51.95
ATOM	5048	CD2	PHE	3333	98.076	2.906	177.699	1.00	54.66
ATOM	5049	CE1	PHE	3333	98.454	2.099	180.317	1.00	52.46
ATOM	5050	CE2	PHE	3333	97.729	1.607	178.088	1.00	54.62
ATOM	5051	CZ	PHE	3333	97.920	1.207	179.396	1.00	53.30
ATOM	5052	C	PHE	3333	99.395	6.793	176.263	1.00	48.80
ATOM	5053	O	PHE	3333	98.353	7.371	175.942	1.00	48.37
ATOM	5054	N	GLU	3334	100.588	7.381	176.242	1.00	48.33
ATOM	5055	CA	GLU	3334	100.756	8.770	175.847	1.00	47.86
ATOM	5056	CB	GLU	3334	102.200	9.195	176.125	1.00	50.65
ATOM	5057	CG	GLU	3334	102.766	8.660	177.449	1.00	54.59
ATOM	5058	CD	GLU	3334	104.295	8.797	177.548	1.00	57.36
ATOM	5059	OE1	GLU	3334	104.886	8.330	178.558	1.00	57.26
ATOM	5060	OE2	GLU	3334	104.906	9.372	176.611	1.00	58.15
ATOM	5061	C	GLU	3334	100.441	8.910	174.355	1.00	45.94
ATOM	5062	O	GLU	3334	99.681	9.790	173.946	1.00	44.87
ATOM	5063	N	ASP	3335	101.024	8.025	173.550	1.00	43.47
ATOM	5064	CA	ASP	3335	100.826	8.047	172.104	1.00	41.39
ATOM	5065	CB	ASP	3335	101.644	6.929	171.432	1.00	41.09
ATOM	5066	CG	ASP	3335	103.109	6.931	171.845	1.00	39.73
ATOM	5067	OD1	ASP	3335	103.734	8.012	171.866	1.00	39.97
ATOM	5068	OD2	ASP	3335	103.641	5.842	172.134	1.00	38.03
ATOM	5069	C	ASP	3335	99.355	7.893	171.723	1.00	39.49
ATOM	5070	O	ASP	3335	98.972	8.129	170.583	1.00	38.45
ATOM	5071	N	ALA	3336	98.533	7.478	172.678	1.00	38.06
ATOM	5072	CA	ALA	3336	97.111	7.307	172.414	1.00	36.62
ATOM	5073	CB	ALA	3336	96.393	6.846	173.665	1.00	37.25
ATOM	5074	C	ALA	3336	96.545	8.638	171.957	1.00	35.50
ATOM	5075	O	ALA	3336	96.944	9.695	172.448	1.00	35.26
ATOM	5076	N	GLY	3337	95.616	8.594	171.012	1.00	34.12
ATOM	5077	CA	GLY	3337	95.039	9.831	170.535	1.00	31.90
ATOM	5078	C	GLY	3337	94.719	9.874	169.058	1.00	31.35
ATOM	5079	O	GLY	3337	94.781	8.870	168.342	1.00	30.70
ATOM	5080	N	GLU	3338	94.384	11.076	168.606	1.00	30.67
ATOM	5081	CA	GLU	3338	94.009	11.311	167.224	1.00	29.11
ATOM	5082	CB	GLU	3338	92.804	12.243	167.203	1.00	28.40
ATOM	5083	CG	GLU	3338	92.428	12.753	165.846	1.00	28.42
ATOM	5084	CD	GLU	3338	91.158	13.562	165.895	1.00	28.49
ATOM	5085	OE1	GLU	3338	90.975	14.325	166.874	1.00	26.39
ATOM	5086	OE2	GLU	3338	90.349	13.437	164.953	1.00	28.88
ATOM	5087	C	GLU	3338	95.130	11.881	166.371	1.00	28.24
ATOM	5088	O	GLU	3338	95.684	12.923	166.680	1.00	27.97
ATOM	5089	N	TYR	3339	95.453	11.179	165.293	1.00	28.00
ATOM	5090	CA	TYR	3339	96.491	11.604	164.375	1.00	28.21
ATOM	5091	CB	TYR	3339	97.395	10.427	164.030	1.00	29.45
ATOM	5092	CG	TYR	3339	98.151	9.935	165.223	1.00	32.54
ATOM	5093	CD1	TYR	3339	97.493	9.304	166.272	1.00	34.64
ATOM	5094	CE1	TYR	3339	98.176	8.901	167.409	1.00	36.15
ATOM	5095	CD2	TYR	3339	99.520	10.149	165.340	1.00	33.64
ATOM	5096	CE2	TYR	3339	100.215	9.751	166.475	1.00	34.99

Table 6

ATOM	5097	CZ	TYR	3339	99.536	9.129	167.504	1.00	36.68
ATOM	5098	OH	TYR	3339	100.217	8.743	168.634	1.00	39.85
ATOM	5099	C	TYR	3339	95.824	12.138	163.126	1.00	27.68
ATOM	5100	O	TYR	3339	94.730	11.716	162.776	1.00	28.83
ATOM	5101	N	THR	3340	96.479	13.066	162.446	1.00	26.46
ATOM	5102	CA	THR	3340	95.895	13.640	161.258	1.00	25.69
ATOM	5103	CB	THR	3340	95.373	15.047	161.511	1.00	25.05
ATOM	5104	OG1	THR	3340	94.384	15.008	162.537	1.00	23.21
ATOM	5105	CG2	THR	3340	94.771	15.615	160.256	1.00	24.64
ATOM	5106	C	THR	3340	96.878	13.740	160.129	1.00	27.33
ATOM	5107	O	THR	3340	98.035	14.118	160.327	1.00	27.05
ATOM	5108	N	CYS	3341	96.402	13.391	158.938	1.00	28.01
ATOM	5109	CA	CYS	3341	97.213	13.495	157.747	1.00	29.00
ATOM	5110	C	CYS	3341	96.683	14.734	157.063	1.00	29.47
ATOM	5111	O	CYS	3341	95.522	14.788	156.668	1.00	29.93
ATOM	5112	CB	CYS	3341	97.029	12.310	156.825	1.00	29.94
ATOM	5113	SG	CYS	3341	97.954	12.509	155.263	1.00	32.69
ATOM	5114	N	LEU	3342	97.540	15.736	156.949	1.00	29.61
ATOM	5115	CA	LEU	3342	97.171	16.987	156.334	1.00	29.36
ATOM	5116	CB	LEU	3342	97.447	18.122	157.313	1.00	30.40
ATOM	5117	CG	LEU	3342	97.185	19.556	156.860	1.00	31.71
ATOM	5118	CD1	LEU	3342	95.734	19.717	156.409	1.00	31.75
ATOM	5119	CD2	LEU	3342	97.506	20.494	158.013	1.00	31.14
ATOM	5120	C	LEU	3342	97.995	17.155	155.069	1.00	29.77
ATOM	5121	O	LEU	3342	99.220	17.015	155.089	1.00	31.00
ATOM	5122	N	ALA	3343	97.318	17.438	153.962	1.00	28.45
ATOM	5123	CA	ALA	3343	97.994	17.631	152.695	1.00	26.45
ATOM	5124	CB	ALA	3343	97.905	16.384	151.861	1.00	26.67
ATOM	5125	C	ALA	3343	97.320	18.778	151.989	1.00	25.63
ATOM	5126	O	ALA	3343	96.096	18.852	151.932	1.00	24.67
ATOM	5127	N	GLY	3344	98.123	19.685	151.457	1.00	25.58
ATOM	5128	CA	GLY	3344	97.550	20.819	150.770	1.00	25.13
ATOM	5129	C	GLY	3344	98.438	21.340	149.673	1.00	24.86
ATOM	5130	O	GLY	3344	99.656	21.156	149.702	1.00	24.14
ATOM	5131	N	ASN	3345	97.813	21.973	148.689	1.00	24.80
ATOM	5132	CA	ASN	3345	98.540	22.558	147.581	1.00	25.78
ATOM	5133	CB	ASN	3345	98.186	21.853	146.288	1.00	25.40
ATOM	5134	CG	ASN	3345	96.724	21.900	146.007	1.00	25.53
ATOM	5135	OD1	ASN	3345	95.961	22.501	146.764	1.00	24.29
ATOM	5136	ND2	ASN	3345	96.311	21.273	144.915	1.00	25.08
ATOM	5137	C	ASN	3345	98.123	24.018	147.516	1.00	26.26
ATOM	5138	O	ASN	3345	97.480	24.526	148.431	1.00	25.61
ATOM	5139	N	SER	3346	98.468	24.700	146.438	1.00	27.10
ATOM	5140	CA	SER	3346	98.112	26.104	146.355	1.00	28.73
ATOM	5141	CB	SER	3346	98.920	26.789	145.262	1.00	29.91
ATOM	5142	OG	SER	3346	98.798	26.073	144.047	1.00	34.21
ATOM	5143	C	SER	3346	96.634	26.374	146.144	1.00	28.92
ATOM	5144	O	SER	3346	96.221	27.524	146.108	1.00	30.67
ATOM	5145	N	ILE	3347	95.820	25.338	146.008	1.00	28.26
ATOM	5146	CA	ILE	3347	94.402	25.582	145.805	1.00	27.39
ATOM	5147	CB	ILE	3347	93.842	24.701	144.673	1.00	25.86
ATOM	5148	CG2	ILE	3347	92.337	24.856	144.580	1.00	24.00
ATOM	5149	CG1	ILE	3347	94.491	25.100	143.349	1.00	25.68
ATOM	5150	CD1	ILE	3347	93.974	24.348	142.146	1.00	24.70
ATOM	5151	C	ILE	3347	93.583	25.375	147.073	1.00	29.34
ATOM	5152	O	ILE	3347	92.573	26.045	147.284	1.00	29.91

ATOM	5153	N	GLY	3348	94.012	24.460	147.932	1.00	30.15
ATOM	5154	CA	GLY	3348	93.256	24.221	149.144	1.00	31.26
ATOM	5155	C	GLY	3348	93.947	23.250	150.065	1.00	31.82
ATOM	5156	O	GLY	3348	95.044	22.780	149.769	1.00	32.85
ATOM	5157	N	LEU	3349	93.294	22.936	151.176	1.00	31.34
ATOM	5158	CA	LEU	3349	93.857	22.030	152.157	1.00	30.48
ATOM	5159	CB	LEU	3349	94.101	22.814	153.439	1.00	32.95
ATOM	5160	CG	LEU	3349	95.251	22.419	154.356	1.00	35.10
ATOM	5161	CD1	LEU	3349	96.569	22.425	153.588	1.00	35.73
ATOM	5162	CD2	LEU	3349	95.297	23.412	155.516	1.00	35.50
ATOM	5163	C	LEU	3349	92.901	20.866	152.410	1.00	29.83
ATOM	5164	O	LEU	3349	91.682	21.048	152.406	1.00	30.17
ATOM	5165	N	SER	3350	93.462	19.675	152.609	1.00	27.99
ATOM	5166	CA	SER	3350	92.688	18.467	152.878	1.00	26.00
ATOM	5167	CB	SER	3350	92.587	17.596	151.638	1.00	25.80
ATOM	5168	OG	SER	3350	91.556	18.049	150.790	1.00	28.58
ATOM	5169	C	SER	3350	93.366	17.676	153.969	1.00	25.61
ATOM	5170	O	SER	3350	94.587	17.670	154.074	1.00	25.80
ATOM	5171	N	HIS	3351	92.571	16.993	154.777	1.00	24.88
ATOM	5172	CA	HIS	3351	93.124	16.212	155.859	1.00	24.27
ATOM	5173	CB	HIS	3351	93.435	17.121	157.047	1.00	25.69
ATOM	5174	CG	HIS	3351	92.221	17.760	157.656	1.00	25.82
ATOM	5175	CD2	HIS	3351	91.564	17.505	158.812	1.00	26.04
ATOM	5176	ND1	HIS	3351	91.534	18.785	157.045	1.00	25.47
ATOM	5177	CE1	HIS	3351	90.507	19.135	157.799	1.00	24.76
ATOM	5178	NE2	HIS	3351	90.502	18.375	158.876	1.00	24.62
ATOM	5179	C	HIS	3351	92.164	15.132	156.309	1.00	24.04
ATOM	5180	O	HIS	3351	90.954	15.313	156.260	1.00	23.23
ATOM	5181	N	HIS	3352	92.727	14.013	156.753	1.00	24.01
ATOM	5182	CA	HIS	3352	91.959	12.888	157.263	1.00	24.04
ATOM	5183	CB	HIS	3352	92.094	11.665	156.356	1.00	23.34
ATOM	5184	CG	HIS	3352	91.255	11.731	155.116	1.00	22.87
ATOM	5185	CD2	HIS	3352	90.379	12.666	154.680	1.00	21.30
ATOM	5186	ND1	HIS	3352	91.272	10.743	154.153	1.00	22.70
ATOM	5187	CE1	HIS	3352	90.442	11.068	153.180	1.00	22.46
ATOM	5188	NE2	HIS	3352	89.889	12.230	153.475	1.00	21.35
ATOM	5189	C	HIS	3352	92.551	12.567	158.612	1.00	24.61
ATOM	5190	O	HIS	3352	93.764	12.509	158.754	1.00	25.71
ATOM	5191	N	SER	3353	91.699	12.363	159.603	1.00	24.94
ATOM	5192	CA	SER	3353	92.174	12.052	160.933	1.00	25.88
ATOM	5193	CB	SER	3353	91.383	12.863	161.940	1.00	26.18
ATOM	5194	OG	SER	3353	91.482	14.231	161.586	1.00	26.96
ATOM	5195	C	SER	3353	92.005	10.572	161.185	1.00	26.54
ATOM	5196	O	SER	3353	91.513	9.857	160.313	1.00	29.28
ATOM	5197	N	ALA	3354	92.413	10.110	162.365	1.00	25.50
ATOM	5198	CA	ALA	3354	92.304	8.703	162.722	1.00	25.00
ATOM	5199	CB	ALA	3354	93.287	7.873	161.912	1.00	24.32
ATOM	5200	C	ALA	3354	92.628	8.592	164.184	1.00	25.54
ATOM	5201	O	ALA	3354	93.415	9.376	164.695	1.00	27.31
ATOM	5202	N	TRP	3355	92.044	7.616	164.863	1.00	25.44
ATOM	5203	CA	TRP	3355	92.302	7.469	166.281	1.00	26.04
ATOM	5204	CB	TRP	3355	90.979	7.384	167.031	1.00	25.50
ATOM	5205	CG	TRP	3355	90.743	8.569	167.909	1.00	26.64
ATOM	5206	CD2	TRP	3355	89.937	9.706	167.605	1.00	26.69
ATOM	5207	CE2	TRP	3355	90.021	10.590	168.717	1.00	27.16
ATOM	5208	CE3	TRP	3355	89.151	10.066	166.507	1.00	27.07

ATOM	5209	CD1	TRP	3355	91.273	8.797	169.151	1.00	27.17
ATOM	5210	NE1	TRP	3355	90.843	10.010	169.643	1.00	27.30
ATOM	5211	CZ2	TRP	3355	89.347	11.807	168.761	1.00	27.41
ATOM	5212	CZ3	TRP	3355	88.475	11.281	166.546	1.00	29.89
ATOM	5213	CH2	TRP	3355	88.578	12.141	167.675	1.00	30.13
ATOM	5214	C	TRP	3355	93.175	6.288	166.648	1.00	26.74
ATOM	5215	O	TRP	3355	93.033	5.203	166.097	1.00	27.96
ATOM	5216	N	LEU	3356	94.095	6.507	167.579	1.00	26.34
ATOM	5217	CA	LEU	3356	94.955	5.433	168.038	1.00	25.59
ATOM	5218	CB	LEU	3356	96.416	5.883	168.041	1.00	25.10
ATOM	5219	CG	LEU	3356	97.565	4.878	168.208	1.00	23.47
ATOM	5220	CD1	LEU	3356	98.387	5.260	169.408	1.00	23.10
ATOM	5221	CD2	LEU	3356	97.040	3.474	168.342	1.00	23.28
ATOM	5222	C	LEU	3356	94.506	5.083	169.453	1.00	25.98
ATOM	5223	O	LEU	3356	94.533	5.925	170.347	1.00	25.12
ATOM	5224	N	THR	3357	94.069	3.841	169.636	1.00	27.25
ATOM	5225	CA	THR	3357	93.613	3.362	170.931	1.00	28.50
ATOM	5226	CB	THR	3357	92.274	2.665	170.800	1.00	27.20
ATOM	5227	OG1	THR	3357	91.388	3.484	170.028	1.00	27.39
ATOM	5228	CG2	THR	3357	91.686	2.413	172.166	1.00	25.04
ATOM	5229	C	THR	3357	94.636	2.369	171.464	1.00	30.57
ATOM	5230	O	THR	3357	94.927	1.367	170.812	1.00	31.40
ATOM	5231	N	VAL	3358	95.174	2.648	172.646	1.00	32.08
ATOM	5232	CA	VAL	3358	96.180	1.787	173.250	1.00	34.35
ATOM	5233	CB	VAL	3358	97.431	2.612	173.561	1.00	35.58
ATOM	5234	CG1	VAL	3358	98.575	1.695	173.966	1.00	37.54
ATOM	5235	CG2	VAL	3358	97.799	3.448	172.342	1.00	35.52
ATOM	5236	C	VAL	3358	95.689	1.089	174.530	1.00	34.72
ATOM	5237	O	VAL	3358	95.143	1.737	175.424	1.00	34.13
ATOM	5238	N	LEU	3359	95.900	-0.227	174.614	1.00	34.83
ATOM	5239	CA	LEU	3359	95.464	-1.017	175.768	1.00	34.41
ATOM	5240	CB	LEU	3359	94.495	-2.102	175.305	1.00	33.37
ATOM	5241	CG	LEU	3359	93.526	-1.718	174.191	1.00	32.23
ATOM	5242	CD1	LEU	3359	92.604	-2.876	173.883	1.00	30.21
ATOM	5243	CD2	LEU	3359	92.730	-0.509	174.614	1.00	33.35
ATOM	5244	C	LEU	3359	96.638	-1.678	176.507	1.00	35.37
ATOM	5245	O	LEU	3359	96.510	-1.972	177.729	1.00	35.11
ATOM	5246	C1	UAP	301	89.711	29.378	112.680	1.00	66.40
ATOM	5247	C2	UAP	301	90.274	28.285	113.574	1.00	65.84
ATOM	5248	C3	UAP	301	91.103	27.178	112.923	1.00	64.73
ATOM	5249	C4	UAP	301	91.933	27.611	111.696	1.00	65.90
ATOM	5250	C5	UAP	301	91.697	29.046	111.263	1.00	66.11
ATOM	5251	C6	UAP	301	92.706	29.570	110.253	1.00	66.51
ATOM	5252	O2	UAP	301	91.058	28.863	114.568	1.00	67.12
ATOM	5253	O3	UAP	301	90.224	26.188	112.541	1.00	63.41
ATOM	5254	O5	UAP	301	90.720	29.905	111.807	1.00	66.68
ATOM	5255	O61	UAP	301	93.591	28.817	109.808	1.00	66.33
ATOM	5256	O62	UAP	301	92.603	30.772	109.940	1.00	67.20
ATOM	5257	S	UAP	301	90.405	28.619	116.174	1.00	68.07
ATOM	5258	O1S	UAP	301	91.196	29.370	117.070	1.00	68.75
ATOM	5259	O2S	UAP	301	90.491	27.233	116.500	1.00	69.12
ATOM	5260	O3S	UAP	301	89.046	29.095	116.161	1.00	68.06
ATOM	5261	C1	SGN	302	85.562	29.966	109.305	1.00	62.50
ATOM	5262	C2	SGN	302	86.994	30.437	109.045	1.00	64.17
ATOM	5263	C3	SGN	302	88.007	29.612	109.794	1.00	64.64
ATOM	5264	C4	SGN	302	87.691	29.587	111.293	1.00	64.51

Table 6

ATOM	5265	C5	SGN	302	86.301	28.963	111.428	1.00	64.20
ATOM	5266	C6	SGN	302	85.816	28.793	112.869	1.00	65.88
ATOM	5267	N	SGN	302	87.263	30.060	107.685	1.00	65.96
ATOM	5268	O1	SGN	302	85.341	28.763	108.606	1.00	60.28
ATOM	5269	O3	SGN	302	89.279	30.155	109.516	1.00	65.38
ATOM	5270	O4	SGN	302	88.643	28.775	111.959	1.00	65.65
ATOM	5271	O5	SGN	302	85.353	29.807	110.723	1.00	62.62
ATOM	5272	O6	SGN	302	86.626	29.514	113.779	1.00	67.31
ATOM	5273	S1	SGN	302	87.587	31.308	106.514	1.00	68.31
ATOM	5274	O1S	SGN	302	88.294	30.730	105.396	1.00	67.08
ATOM	5275	O2S	SGN	302	88.391	32.298	107.167	1.00	67.69
ATOM	5276	O3S	SGN	302	86.329	31.882	106.091	1.00	66.97
ATOM	5277	S2	SGN	302	85.909	30.962	114.464	1.00	69.09
ATOM	5278	O4S	SGN	302	86.882	31.639	115.271	1.00	68.92
ATOM	5279	O5S	SGN	302	84.773	30.572	115.252	1.00	69.02
ATOM	5280	O6S	SGN	302	85.463	31.801	113.377	1.00	69.15
ATOM	5281	C1	IDU	303	84.509	25.797	106.897	1.00	55.63
ATOM	5282	C2	IDU	303	84.659	27.144	106.163	1.00	57.90
ATOM	5283	C3	IDU	303	83.864	28.339	106.732	1.00	58.91
ATOM	5284	C4	IDU	303	84.000	28.441	108.262	1.00	59.03
ATOM	5285	C5	IDU	303	83.766	27.063	108.825	1.00	58.04
ATOM	5286	C6	IDU	303	83.412	27.066	110.293	1.00	59.02
ATOM	5287	O2	IDU	303	85.993	27.486	106.028	1.00	61.09
ATOM	5288	O3	IDU	303	82.534	28.219	106.368	1.00	58.89
ATOM	5289	O5	IDU	303	84.507	25.992	108.310	1.00	56.83
ATOM	5290	O61	IDU	303	82.304	27.518	110.648	1.00	60.56
ATOM	5291	O62	IDU	303	84.204	26.466	111.054	1.00	58.07
ATOM	5292	S	IDU	303	86.568	27.438	104.373	1.00	64.62
ATOM	5293	O1S	IDU	303	87.498	26.359	104.282	1.00	64.85
ATOM	5294	O2S	IDU	303	87.221	28.679	104.077	1.00	64.30
ATOM	5295	O3S	IDU	303	85.426	27.210	103.521	1.00	65.20
ATOM	5296	C1	SGN	304	81.524	21.415	106.321	1.00	48.29
ATOM	5297	C2	SGN	304	81.423	22.246	107.606	1.00	47.44
ATOM	5298	C3	SGN	304	81.681	23.714	107.324	1.00	47.98
ATOM	5299	C4	SGN	304	83.079	23.842	106.723	1.00	48.95
ATOM	5300	C5	SGN	304	83.103	23.041	105.431	1.00	48.77
ATOM	5301	C6	SGN	304	84.454	23.117	104.741	1.00	49.71
ATOM	5302	N	SGN	304	80.070	22.142	108.071	1.00	45.66
ATOM	5303	O1	SGN	304	80.479	21.788	105.427	1.00	49.32
ATOM	5304	O3	SGN	304	81.599	24.434	108.533	1.00	47.11
ATOM	5305	O4	SGN	304	83.322	25.205	106.432	1.00	51.46
ATOM	5306	O5	SGN	304	82.816	21.657	105.741	1.00	48.30
ATOM	5307	O6	SGN	304	85.185	21.924	104.984	1.00	50.11
ATOM	5308	S1	SGN	304	79.664	20.705	108.987	1.00	44.63
ATOM	5309	O1S	SGN	304	79.613	19.567	108.119	1.00	45.33
ATOM	5310	O2S	SGN	304	78.396	20.914	109.582	1.00	46.11
ATOM	5311	O3S	SGN	304	80.650	20.507	110.002	1.00	45.41
ATOM	5312	S2	SGN	304	86.826	22.096	105.597	1.00	50.54
ATOM	5313	O4S	SGN	304	86.839	21.724	106.976	1.00	51.41
ATOM	5314	O5S	SGN	304	87.269	23.462	105.450	1.00	50.31
ATOM	5315	O6S	SGN	304	87.672	21.234	104.812	1.00	50.79
ATOM	5316	C1	IDU	305	78.695	22.818	102.676	1.00	58.45
ATOM	5317	C2	IDU	305	77.977	22.187	103.924	1.00	55.41
ATOM	5318	C3	IDU	305	78.507	20.821	104.375	1.00	52.78
ATOM	5319	C4	IDU	305	80.037	20.825	104.454	1.00	51.52
ATOM	5320	C5	IDU	305	80.549	21.288	103.101	1.00	52.02

Table 6

ATOM	5321	C6	IDU	305	81.993	20.963	102.837	1.00	51.75
ATOM	5322	O2	IDU	305	78.106	23.074	105.015	1.00	55.80
ATOM	5323	O3	IDU	305	78.061	19.864	103.503	1.00	54.66
ATOM	5324	O5	IDU	305	80.056	22.449	102.505	1.00	54.74
ATOM	5325	O61	IDU	305	82.416	19.815	103.042	1.00	52.45
ATOM	5326	O62	IDU	305	82.704	21.926	102.502	1.00	51.18
ATOM	5327	S	IDU	305	76.837	23.003	106.213	1.00	53.85
ATOM	5328	O1S	IDU	305	77.342	22.266	107.302	1.00	52.70
ATOM	5329	O2S	IDU	305	75.691	22.363	105.650	1.00	53.75
ATOM	5330	O3S	IDU	305	76.559	24.346	106.605	1.00	53.55
ATOM	5331	C1	SGN	306	75.154	21.393	98.778	1.00	78.80
ATOM	5332	C2	SGN	306	74.770	21.467	100.267	1.00	79.74
ATOM	5333	C3	SGN	306	75.639	22.506	100.972	1.00	76.61
ATOM	5334	C4	SGN	306	77.112	22.075	100.839	1.00	72.68
ATOM	5335	C5	SGN	306	77.424	22.049	99.326	1.00	74.98
ATOM	5336	C6	SGN	306	78.861	21.644	99.022	1.00	76.09
ATOM	5337	N	SGN	306	73.403	21.965	100.351	1.00	82.98
ATOM	5338	O1	SGN	306	74.371	20.399	98.144	1.00	81.41
ATOM	5339	O3	SGN	306	75.270	22.557	102.339	1.00	77.49
ATOM	5340	O4	SGN	306	77.915	23.069	101.487	1.00	65.99
ATOM	5341	O5	SGN	306	76.557	21.082	98.708	1.00	76.02
ATOM	5342	O6	SGN	306	78.873	20.683	97.944	1.00	78.66
ATOM	5343	S1	SGN	306	72.288	21.244	101.549	1.00	86.61
ATOM	5344	O1S	SGN	306	72.520	19.819	101.628	1.00	86.13
ATOM	5345	O2S	SGN	306	70.954	21.508	101.095	1.00	85.70
ATOM	5346	O3S	SGN	306	72.482	21.855	102.841	1.00	85.42
ATOM	5347	S2	SGN	306	78.623	21.211	96.238	1.00	80.07
ATOM	5348	O4S	SGN	306	77.928	20.181	95.526	1.00	78.72
ATOM	5349	O5S	SGN	306	79.908	21.419	95.639	1.00	80.77
ATOM	5350	O6S	SGN	306	77.876	22.453	96.196	1.00	79.95
ATOM	5351	C1	IDU	307	72.715	17.940	96.060	1.00	88.33
ATOM	5352	C2	IDU	307	72.875	19.430	95.641	1.00	86.54
ATOM	5353	C3	IDU	307	74.326	19.967	95.727	1.00	86.02
ATOM	5354	C4	IDU	307	74.981	19.647	97.082	1.00	84.48
ATOM	5355	C5	IDU	307	74.745	18.190	97.392	1.00	83.71
ATOM	5356	C6	IDU	307	75.601	17.687	98.529	1.00	83.21
ATOM	5357	O2	IDU	307	72.493	19.517	94.285	1.00	87.26
ATOM	5358	O3	IDU	307	74.328	21.338	95.507	1.00	85.33
ATOM	5359	O5	IDU	307	73.457	17.651	97.250	1.00	86.50
ATOM	5360	O61	IDU	307	76.299	16.692	98.323	1.00	81.29
ATOM	5361	O62	IDU	307	75.326	18.118	99.672	1.00	82.32
ATOM	5362	S	IDU	307	71.672	20.988	93.788	1.00	88.72
ATOM	5363	O1S	IDU	307	72.664	21.855	93.236	1.00	88.23
ATOM	5364	O2S	IDU	307	71.032	21.589	94.928	1.00	88.48
ATOM	5365	O3S	IDU	307	70.717	20.595	92.783	1.00	88.33
ATOM	5366	C1	SGN	308	69.092	13.994	96.200	1.00	94.38
ATOM	5367	C2	SGN	308	70.317	14.199	97.107	1.00	95.70
ATOM	5368	C3	SGN	308	70.606	15.663	97.398	1.00	93.91
ATOM	5369	C4	SGN	308	70.981	16.226	96.030	1.00	92.64
ATOM	5370	C5	SGN	308	69.768	16.104	95.072	1.00	94.34
ATOM	5371	C6	SGN	308	70.155	16.638	93.684	1.00	95.74
ATOM	5372	N	SGN	308	70.243	13.442	98.339	1.00	99.23
ATOM	5373	O1	SGN	308	67.922	14.465	96.870	1.00	93.44
ATOM	5374	O3	SGN	308	71.728	15.764	98.252	1.00	92.74
ATOM	5375	O4	SGN	308	71.327	17.609	96.157	1.00	90.67
ATOM	5376	O5	SGN	308	69.339	14.705	94.949	1.00	94.10

Table 6

ATOM	5377	O6	SGN	308	71.085	15.714	93.059	1.00	97.55
ATOM	5378	S1	SGN	308	71.661	12.414	98.738	1.00	101.81
ATOM	5379	O1S	SGN	308	71.720	11.295	97.822	1.00	101.81
ATOM	5380	O2S	SGN	308	71.485	11.950	100.088	1.00	101.81
ATOM	5381	O3S	SGN	308	72.886	13.189	98.639	1.00	101.81
ATOM	5382	S2	SGN	308	72.736	16.256	92.593	1.00	98.46
ATOM	5383	O4S	SGN	308	72.700	17.607	92.120	1.00	97.88
ATOM	5384	O5S	SGN	308	73.216	15.397	91.547	1.00	97.59
ATOM	5385	O6S	SGN	308	73.612	16.123	93.731	1.00	96.16
ATOM	5386	C1	UAP	1301	99.984	28.369	114.585	1.00	63.64
ATOM	5387	C2	UAP	1301	98.784	28.735	115.438	1.00	63.25
ATOM	5388	C3	UAP	1301	98.294	30.192	115.433	1.00	64.22
ATOM	5389	C4	UAP	1301	98.524	30.968	114.107	1.00	64.45
ATOM	5390	C5	UAP	1301	99.311	30.177	113.059	1.00	64.79
ATOM	5391	C6	UAP	1301	99.312	30.805	111.668	1.00	65.66
ATOM	5392	O2	UAP	1301	97.709	27.939	115.078	1.00	61.67
ATOM	5393	O3	UAP	1301	98.934	30.847	116.486	1.00	63.94
ATOM	5394	O5	UAP	1301	99.907	28.911	113.266	1.00	63.51
ATOM	5395	O61	UAP	1301	98.751	31.902	111.474	1.00	65.52
ATOM	5396	O62	UAP	1301	99.869	30.146	110.766	1.00	66.61
ATOM	5397	S	UAP	1301	96.989	27.084	116.416	1.00	59.96
ATOM	5398	O1S	UAP	1301	95.599	27.032	116.168	1.00	59.72
ATOM	5399	O2S	UAP	1301	97.243	27.788	117.649	1.00	60.99
ATOM	5400	O3S	UAP	1301	97.572	25.776	116.405	1.00	59.85
ATOM	5401	C1	SGN	1302	105.076	27.945	115.940	1.00	66.27
ATOM	5402	C2	SGN	1302	104.590	28.121	114.499	1.00	65.68
ATOM	5403	C3	SGN	1302	103.305	28.937	114.471	1.00	64.98
ATOM	5404	C4	SGN	1302	102.273	28.162	115.267	1.00	64.94
ATOM	5405	C5	SGN	1302	102.753	28.002	116.704	1.00	65.77
ATOM	5406	C6	SGN	1302	101.712	27.239	117.521	1.00	66.32
ATOM	5407	N	SGN	1302	105.593	28.906	113.815	1.00	66.15
ATOM	5408	O1	SGN	1302	105.374	29.247	116.443	1.00	67.50
ATOM	5409	O3	SGN	1302	102.858	29.086	113.138	1.00	64.85
ATOM	5410	O4	SGN	1302	101.080	28.882	115.277	1.00	64.61
ATOM	5411	O5	SGN	1302	104.021	27.294	116.694	1.00	65.72
ATOM	5412	O6	SGN	1302	102.251	26.030	118.025	1.00	67.95
ATOM	5413	S1	SGN	1302	106.415	28.196	112.415	1.00	66.53
ATOM	5414	O1S	SGN	1302	105.883	28.790	111.214	1.00	65.81
ATOM	5415	O2S	SGN	1302	106.164	26.789	112.436	1.00	65.66
ATOM	5416	O3S	SGN	1302	107.837	28.429	112.508	1.00	65.29
ATOM	5417	S2	SGN	1302	101.822	25.610	119.680	1.00	69.68
ATOM	5418	O4S	SGN	1302	102.732	26.252	120.587	1.00	70.12
ATOM	5419	O5S	SGN	1302	101.904	24.179	119.820	1.00	68.94
ATOM	5420	O6S	SGN	1302	100.465	26.036	119.920	1.00	69.87
ATOM	5421	C1	IDU	1303	107.412	32.109	117.309	1.00	70.24
ATOM	5422	C2	IDU	1303	107.919	30.853	116.576	1.00	70.77
ATOM	5423	C3	IDU	1303	107.641	29.512	117.278	1.00	69.95
ATOM	5424	C4	IDU	1303	106.154	29.370	117.637	1.00	69.26
ATOM	5425	C5	IDU	1303	105.701	30.661	118.318	1.00	69.74
ATOM	5426	C6	IDU	1303	104.297	30.559	118.843	1.00	70.20
ATOM	5427	O2	IDU	1303	107.390	30.815	115.289	1.00	73.31
ATOM	5428	O3	IDU	1303	108.438	29.393	118.402	1.00	70.32
ATOM	5429	O5	IDU	1303	106.078	31.915	117.781	1.00	69.63
ATOM	5430	O61	IDU	1303	104.088	29.945	119.899	1.00	70.68
ATOM	5431	O62	IDU	1303	103.458	31.288	118.281	1.00	70.21
ATOM	5432	S	IDU	1303	108.350	31.678	114.099	1.00	75.41

Table 6

ATOM	5433	O1S	IDU	1303	108.386	33.051	114.484	1.00	75.11
ATOM	5434	O2S	IDU	1303	107.730	31.538	112.814	1.00	75.13
ATOM	5435	O3S	IDU	1303	109.661	31.083	114.128	1.00	74.40
ATOM	5436	C1	SGN	1304	108.865	35.363	121.338	1.00	73.27
ATOM	5437	C2	SGN	1304	108.137	34.041	121.685	1.00	71.39
ATOM	5438	C3	SGN	1304	108.445	32.956	120.649	1.00	71.09
ATOM	5439	C4	SGN	1304	108.034	33.464	119.263	1.00	71.78
ATOM	5440	C5	SGN	1304	108.843	34.746	118.973	1.00	73.44
ATOM	5441	C6	SGN	1304	108.516	35.340	117.611	1.00	75.39
ATOM	5442	N	SGN	1304	108.696	33.559	122.927	1.00	68.96
ATOM	5443	O1	SGN	1304	110.283	35.211	121.488	1.00	75.58
ATOM	5444	O3	SGN	1304	107.738	31.776	120.988	1.00	69.69
ATOM	5445	O4	SGN	1304	108.348	32.447	118.309	1.00	70.53
ATOM	5446	O5	SGN	1304	108.520	35.735	119.988	1.00	73.79
ATOM	5447	O6	SGN	1304	107.318	36.107	117.720	1.00	77.19
ATOM	5448	S1	SGN	1304	108.114	34.231	124.446	1.00	66.75
ATOM	5449	O1S	SGN	1304	108.335	35.645	124.481	1.00	67.47
ATOM	5450	O2S	SGN	1304	108.833	33.590	125.494	1.00	66.13
ATOM	5451	O3S	SGN	1304	106.720	33.957	124.574	1.00	67.93
ATOM	5452	S2	SGN	1304	106.061	35.870	116.506	1.00	78.60
ATOM	5453	O4S	SGN	1304	105.417	37.125	116.243	1.00	79.30
ATOM	5454	O5S	SGN	1304	105.107	34.932	117.038	1.00	78.89
ATOM	5455	O6S	SGN	1304	106.671	35.336	115.310	1.00	78.63
ATOM	5456	C1	IDU	1305	114.018	35.900	122.301	1.00	83.03
ATOM	5457	C2	IDU	1305	113.051	35.540	123.454	1.00	80.20
ATOM	5458	C3	IDU	1305	111.573	35.996	123.419	1.00	78.83
ATOM	5459	C4	IDU	1305	110.999	36.329	122.025	1.00	77.88
ATOM	5460	C5	IDU	1305	112.092	36.738	121.040	1.00	79.17
ATOM	5461	C6	IDU	1305	111.548	37.212	119.687	1.00	79.44
ATOM	5462	O2	IDU	1305	113.215	34.215	123.956	1.00	77.79
ATOM	5463	O3	IDU	1305	111.404	37.056	124.273	1.00	78.31
ATOM	5464	O5	IDU	1305	113.352	36.113	121.058	1.00	80.89
ATOM	5465	O61	IDU	1305	110.438	37.771	119.627	1.00	79.07
ATOM	5466	O62	IDU	1305	112.215	36.905	118.679	1.00	78.65
ATOM	5467	S	IDU	1305	112.571	32.870	123.007	1.00	75.82
ATOM	5468	O1S	IDU	1305	112.705	33.181	121.627	1.00	76.64
ATOM	5469	O2S	IDU	1305	111.205	32.675	123.345	1.00	76.15
ATOM	5470	O3S	IDU	1305	113.350	31.733	123.340	1.00	73.63
ATOM	5471	C1	SGN	1306	118.222	36.383	120.003	1.00	98.21
ATOM	5472	C2	SGN	1306	118.143	35.478	121.253	1.00	98.39
ATOM	5473	C3	SGN	1306	116.756	35.509	121.875	1.00	97.23
ATOM	5474	C4	SGN	1306	116.298	36.952	122.158	1.00	94.94
ATOM	5475	C5	SGN	1306	116.362	37.752	120.844	1.00	96.28
ATOM	5476	C6	SGN	1306	115.932	39.207	121.039	1.00	97.55
ATOM	5477	N	SGN	1306	118.381	34.086	120.796	1.00	99.10
ATOM	5478	O1	SGN	1306	117.465	35.806	118.949	1.00	99.21
ATOM	5479	O3	SGN	1306	116.745	34.697	123.043	1.00	99.21
ATOM	5480	O4	SGN	1306	114.946	36.939	122.709	1.00	89.42
ATOM	5481	O5	SGN	1306	117.728	37.702	120.348	1.00	97.38
ATOM	5482	O6	SGN	1306	117.053	40.079	120.827	1.00	98.80
ATOM	5483	S1	SGN	1306	117.056	32.951	120.302	1.00	99.45
ATOM	5484	O1S	SGN	1306	115.892	33.658	119.812	1.00	99.12
ATOM	5485	O2S	SGN	1306	116.723	32.178	121.456	1.00	99.28
ATOM	5486	O3S	SGN	1306	117.543	32.068	119.277	1.00	99.02
ATOM	5487	S2	SGN	1306	117.386	40.657	119.172	1.00	99.96
ATOM	5488	O4S	SGN	1306	118.013	41.944	119.241	1.00	99.55
ATOM	5489	O5S	SGN	1306	116.148	40.755	118.444	1.00	99.37
ATOM	5490	O6S	SGN	1306	118.244	39.703	118.514	1.00	100.23